

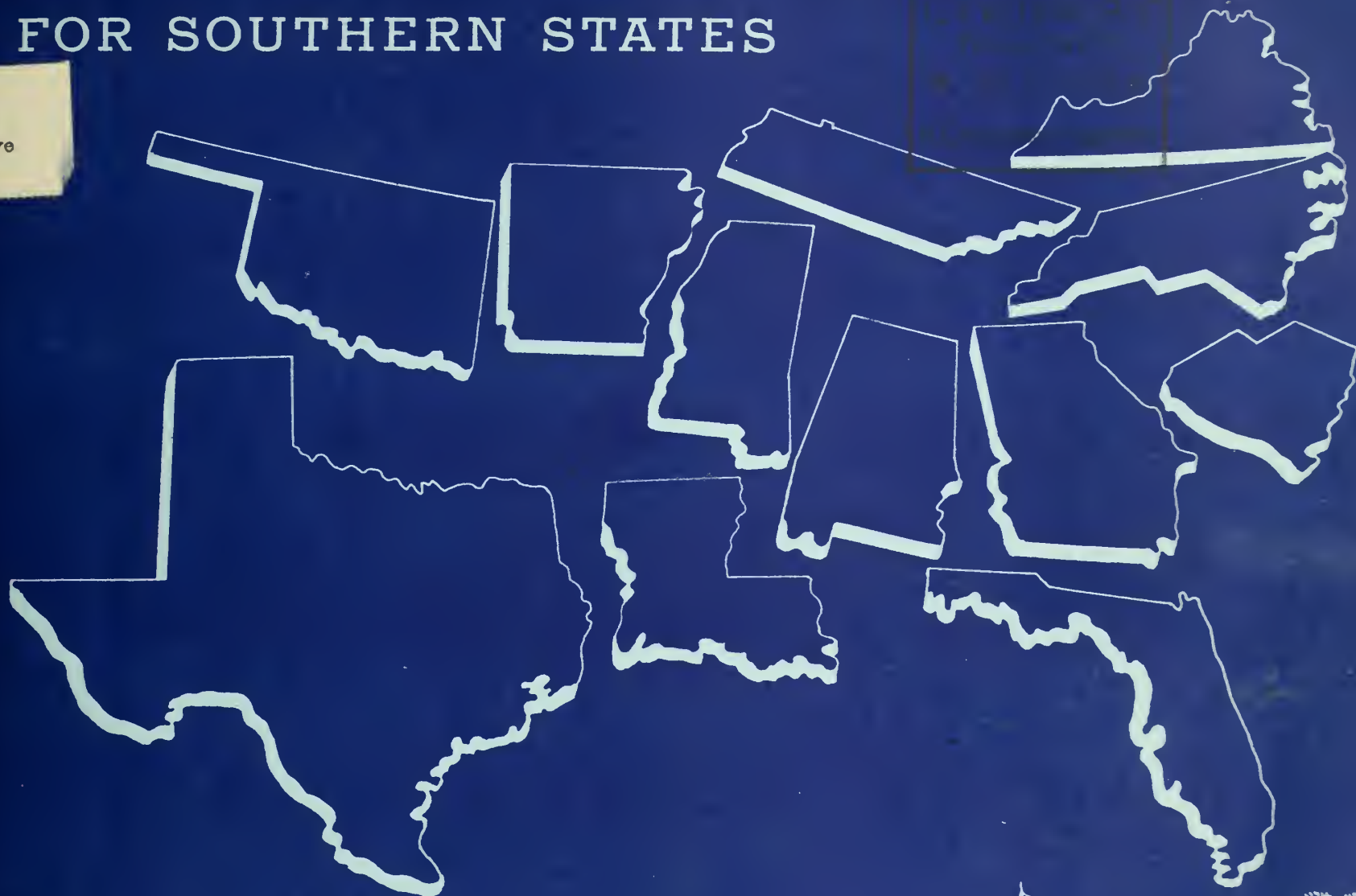
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# PLANS OF FARM BUILDINGS FOR SOUTHERN STATES

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U. S. DEPARTMENT OF AGRICULTURE

MISCELLANEOUS PUBLICATION No. 360





# THUMB INDEX

The plans illustrated in this book are grouped under the index titles printed on the margin of this page.

The first page of each group is indicated by a thumb mark on its edge directly beneath the corresponding index title.

To locate a group of plans, bend the book to expose the thumb marks and open at the mark in line with the selected index title.

710	FARMHOUSES
721	GENERAL BARNs
722	HORSE BARNs
723	DAIRY BARNs AND MILK HOUSEs
724	CATTLE SHELTERS AND EQUIPMENT
725	SHEEP SHELTERS AND EQUIPMENT
726	HOG HOUSEs AND EQUIPMENT
727	POULTRY HOUSEs AND EQUIPMENT
731-735	GRANARIES AND STORAGEs
741-745	EQUIPMENT AND SUPPLIES BUILDINGs
751-753	BUILDINGs FOR PROCESSING
791-852	MISCELLANEOUS BUILDINGs
	INDEX OF DESIGN NUMBERS
	LIST OF BULLETINS

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# PLANS OF FARM BUILDINGS FOR SOUTHERN STATES



Compiled by

THE BUREAU OF AGRICULTURAL CHEMISTRY AND ENGINEERING AND THE EXTENSION  
SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, IN COOPERATION WITH  
THE AGRICULTURAL ENGINEERING DEPARTMENTS AND THE COOPERATIVE EXTENSION  
SERVICES IN AGRICULTURE AND HOME ECONOMICS AT THE FOLLOWING COLLEGES  
AND UNIVERSITIES

Alabama Polytechnic Institute . . . . . Auburn, Ala.  
College of Agriculture, University of Arkansas . . . Fayetteville, Ark.  
College of Agriculture, University of Florida . . . . Gainesville, Fla.  
College of Agriculture, University of Georgia . . . . Athens, Ga.  
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College of Agriculture, University of Tennessee . . . Knoxville, Tenn.  
Agricultural and Mechanical College of Texas . . . College Station, Tex.  
Virginia Polytechnic Institute . . . . . Blacksburg, Va.

# LIST OF DRAWINGS

\* Indicates available drawings mentioned in this book but not illustrated.

## FARMHOUSES

No.	Page
710 5050. Low-cost four-room farmhouse . . . . .	22
710 5054. Five-room farmhouse . . . . .	11
710 5536. Low-cost three-room farmhouse . . . . .	23
710 5537. Low-cost three-room farmhouse . . . . .	24
710 5538. Low-cost four-room farmhouse . . . . .	25
710 5539. Four-room farmhouse, one-story . . . . .	12
710 5540. Four-room and attic farmhouse . . . . .	13
710 5541. Five-room farmhouse . . . . .	14
710 5542. Five-room farmhouse . . . . .	15
710 5543. Five-room farmhouse . . . . .	16
710 5544. Five-room farmhouse, one-story . . . . .	17
710 5545. Six-room farmhouse and attic . . . . .	18
710 5546. Seven-room farmhouse, one and one-half stories . . . . .	19
710 5547. Eight-room farmhouse, one and one-half stories . . . . .	20
710 5548. Six-room farmhouse, two stories . . . . .	21

Many helpful suggestions regarding construction details are given in United States Department of Agriculture Farmers' Bulletins 744, 1219, 1452, 1472, 1500, 1512, 1513, 1572, 1582, 1590, 1638, 1660, 1720, 1738, 1749, 1751, 1756, 1772, and Leaflets 56, 62, 77, 87, 101 (for titles see pp. 122-123).

## BARN FRAMING AND DETAILS

720-5119D. Barn-framing details, one and one-half-story gable roof . . . . .	41
720-5120E. Barn-framing details, one-story gable roof . . . . .	41
720-5524A. Barn-framing details, two-story Gothic roof . . . . .	41

No.	Page
720-5525B. Barn-framing details, two stories, braced rafters . . . . .	41
720-5526C. Barn-framing details, one and one-half stories, braced rafters . . . . .	41
720-5527F. Barn-framing details, one story, scissors truss . . . . .	41
*720-5103. Hay-door details . . . . .	41
*720-5105. Cow-stall details . . . . .	41
720-5106. Concreting details for cow stalls . . . . .	42
*720-5107. Box-stall details (horses, cows, and calves) . . . . .	41
*720-5170. Barn-window details . . . . .	41
*720-5171. Barn-door details . . . . .	41
*720-5175. Horse-stall details . . . . .	41
*720-5199. Barn-eaves details . . . . .	41

## GENERAL BARNs

721-5166. 16 by 16 feet—one or one and one-half stories . . . . .	26
721-5167. 16 by 28 feet—one and one-half stories . . . . .	27
721-5550. 36 by 50 feet—two stories . . . . .	28
721-5551. 36 by 40 feet—two stories . . . . .	29
721-5552. 32 by 36 feet—two stories . . . . .	30
721-5553. 32 by 40 feet—two stories . . . . .	31
721-5554. 30 by 42 feet—two stories . . . . .	32
*721-5549. 30 by 50 feet—two stories . . . . .	29
721-5556. 24 by 30 feet—two stories . . . . .	33
721-5557. 20 by 20 feet—two stories, with lean-to . . . . .	34
721-5558. 18 by 24 feet—one and one-half stories . . . . .	35
721-5559. 30 by 24 feet, hay to ground, two lean-to sheds . . . . .	36

## HORSE BARNs

722-5560. Horse barn 36 by 74 feet . . . . .	37
722-5561. Mule barn 34 by 60 feet . . . . .	38
*722-5512. Horse barn 26 by 34 feet . . . . .	37
722-5563. Horse barn 30 by 70 feet . . . . .	39

United States Department of Agriculture Farmers' Bulletin 1419 describes essential requirements of horse stables.

## DAIRY BARNs

723-5111. Floor plan, 36 by 72 feet, face in . . . . .	43
--	----

No.	Page
723-5112. Floor plan, 36 by 72 feet, face out . . . . .	43
723-5113. Six floor plans, 36 feet wide, face in and face out . . . . .	44
*723-5115. Floor plan, 34 by 66 feet, face in . . . . .	43
*723-5116. Floor plan, 34 by 66 feet, face out . . . . .	43
*723-5117. Six floor plans, 34 feet wide . . . . .	44
723-5128. Braced rafter, 36 by 44 feet, face out . . . . .	45
723-5459. Dairy barn, one-row shed roof . . . . .	46
723-5564. Lean-to shed . . . . .	47
723-5565. Dairy barn, one-row gable roof . . . . .	48
723-5566. Dairy barn, 34 by 56 feet . . . . .	49

Milk houses listed p. 6.

United States Department of Agriculture Farmers' Bulletins 1342, 1393 deal with dairy barns (for titles see pp. 122-123).

## CATTLE SHELTERS AND EQUIPMENT

724-5262. Beef cattle barn . . . . .	54
724-5460. Cattle shed . . . . .	55
724-5567. Cattle shed, 64 by 40 feet . . . . .	56
7241-5041. Cattle squeeze . . . . .	57
7241-5083. Self-feeder . . . . .	57
*7241-5090. Creosoting plant . . . . .	62
7241-5094. Feed trough . . . . .	58
7241-5143. Bull pen and yard . . . . .	59
7241-5468. Cattle guard (wood) . . . . .	58
*7241-5469. Cattle guard (concrete and wood) . . . . .	58
*7241-5470. Cattle guard (concrete and steel) . . . . .	58
7241-5568. Dipping vat . . . . .	60
7241-5569. Corral . . . . .	61
7241-5571. Creosoting plant . . . . .	62
*7241-5505. Farm gates . . . . .	62
*7241-5614. Auto-bumper gate . . . . .	62

United States Department of Agriculture Farmers' Bulletins 1350, 1412, 1584 deal with cattle shelters and equipment (for titles see pp. 122-123).

## SHEEP SHELTERS AND EQUIPMENT

725-5019. Sheep shed (closed) . . . . .	63
*725-5025. Sheep shed (open) . . . . .	64

No.	Page
725-5572. Sheep shed (20 by 38 feet) . . . . .	64
725-5573. Sheep shed (200 head) . . . . .	65
7251-5574. Sheep feeding yards . . . . .	66

United States Department of Agriculture Farmers' Bulletins 810, 1710 deal with shelters and equipment for sheep (for titles see pp. 122-123).

## HOG HOUSES AND EQUIPMENT

726-5065. Gable-roof colony house . . . . .	67
726-5127. Shed-roof colony house (no floor) . . . . .	67
726-5271. A-type colony house (no floor) . . . . .	67
726-5575. Farrowing house . . . . .	68
7261-5040. Breeding crate . . . . .	69
7261-5063. Hog-scalding equipment . . . . .	69
7261-5388. Movable loading chute . . . . .	70
7261-5390. Dipping vat . . . . .	70
7261-5576. Hog-lot equipment . . . . .	71
*7261-5577. Hog troughs . . . . .	71
7261-5578. Grading shed . . . . .	72
7261-5579. Self-feeder . . . . .	73

United States Department of Agriculture Farmers' Bulletins 1487, 1490 deal with hog houses and equipment (for titles see pp. 122-123).

## POULTRY HOUSES AND EQUIPMENT

727-5133. Poultry house (two-story) . . . . .	74
727-5291. Brooder house . . . . .	75
727-5580. Poultry house . . . . .	76
727-5581. Poultry house (20 by 20 feet) . . . . .	77
727-5582. Poultry house (20 by 50 feet) . . . . .	78
*7271-5136. Poultry lights and water heater . . . . .	78
*7271-5137. Poultry burglar alarm . . . . .	78
7271-5400. Summer-range shelter . . . . .	79
7271-5583. Electric brooder . . . . .	79
7271-5584. Home-made lamp brooder . . . . .	79
7271-5585. Brooder house on skids . . . . .	80

United States Department of Agriculture Farmers' Bulletins 1508, 1538, 1554 relate to poultry houses and equipment; 684 deals with squabs; 697 with ducks; 767 with geese; 1409 with turkeys; and 1730 with rabbit-raising equipment (for titles see pp. 122-123).



## GRANARIES AND STORAGES

No.	Page
731-5089. Hay shed . . . . .	81
732-5145. Storage shed (semicircular roof) . . . . .	82
732-5528. Four-bin granary . . . . .	83
*732-5533. Corncrib (700 bushels) . . . . .	84
*732-5535. Double crib . . . . .	84
732-5586. Corncrib (500 bushels) . . . . .	84
732-5587. Corncrib (3,000 bushels) . . . . .	85
*732-5530. Movable bins (500 bushels) . . . . .	86
*732-5531. Movable bin (1,000 bushels) . . . . .	86
732-5588. Movable bin (660 bushels) . . . . .	86
732-5612. Corncrib (700 bushels) . . . . .	87
733-5589. Trench silo . . . . .	88
734-5020. Sweetpotato house (1,000 bushels) . . . . .	89
*734-5061. Sweetpotato house (2,500 bushels) . . . . .	89
*734-5096. Sweetpotato house (5,200 bushels) . . . . .	89
*734-5179. Sweetpotato house (500 bushels) . . . . .	89
*734-5592. Sweetpotato storage house (log construction) . . . . .	89
*734-5611. Sweetpotato house (15,000 bushels) . . . . .	89
*734-5613. Basement for sweetpotato houses . . . . .	89
734-5176. Root cellar . . . . .	90
734-5590. Apple packing and storage house (50 acres) . . . . .	91
734-5591. Fruit and vegetable storage (1,000 bushels) . . . . .	92
*735-5593. Tobacco barn (log construction) . . . . .	93
735-5594. Tobacco barn (frame construction) . . . . .	93

The following United States Department of Agriculture Farmers' Bulletins deal with various farm storages: Grain, Farmers' Bulletins 1260, 1483, 1636, and A. A. A. Commodity Information Series 38 Wheat-1, 38 Corn-2; silage, Farmers' Bulletins 578, 1820; potatoes, Farmers' Bulletins 847, 879; sweetpotatoes, Farmers' Bulletins 1267, 1442; apples, Farmers' Bulletin 1160; tobacco, Farmers' Bulletin 523.

## EQUIPMENT AND SUPPLIES BUILDINGS

741-5148. Implement shed and shop . . . . .	94
741-5149. Two-car garage . . . . .	95
741-5150. One-car garage . . . . .	95
*741-5562. Implement shed, three-bay unit . . . . .	96
741-5595. Implement shed and shop . . . . .	96
741-5596. Implement shed and loft . . . . .	97
743-5151. Manure pit . . . . .	98

No.	Page
745-5501. Utility shed . . . . .	99
*745-5555. Cotton shed . . . . .	99

## BUILDINGS FOR PROCESSING

751-5029. Smokehouse . . . . .	100
751-5597. Slaughterhouse . . . . .	101
*751-5615. Slaughterhouse . . . . .	101
752-5023. Three-room milk house . . . . .	50
752-5457. Milking barn and milk house . . . . .	51
752-5598. Milk house . . . . .	52
7521-5180. Can-cooling tank . . . . .	53
753-5599. Canning plant . . . . .	102
753-5600. Small canning plant . . . . .	103
753-5601. Canning plant . . . . .	104

United States Department of Agriculture Farmers' Bulletins 1214, 1818 deal with milk houses and mechanical coolers (for titles see pp. 122-123).

## MISCELLANEOUS BUILDINGS

*791-5183. Playground lay-outs . . . . .	105
791-5602. Community center . . . . .	105
791-5603. Club building . . . . .	106
791-5606. Community camp building . . . . .	107
791-5607. 4-H Club kitchen . . . . .	108
794-5184. One-room cabin . . . . .	109
794-5185. Three-room cabin . . . . .	110
794-5187. Camp building . . . . .	111
795-5189. Sash greenhouse . . . . .	112
795-5608. Flue-heated sash house . . . . .	113
799-5190. Four roadside markets . . . . .	114
799-5194. Open roadside stand . . . . .	115
799-5604. Roadside stand . . . . .	115
799-5605. Curb market . . . . .	116
852-5198. Incinerator . . . . .	117
852-5609. Fireplace . . . . .	118
852-5610. Trash burner . . . . .	118

The following United States Department of Agriculture publications deal with various kinds of buildings: Community buildings, Farmers' Bulletins 1792, 1804; greenhouses, Farmers' Bulletin 1318, Leaflet 124; hotbeds and coldframes, Farmers' Bulletin 1743; roadside stands, Leaflet 68 (for titles see pp. 122-123).

# INTRODUCTION

FOR a number of years the agricultural engineering departments and the agricultural extension services at the colleges of agriculture of most States, as well as the Bureau of Agricultural Chemistry and Engineering of the United States Department of Agriculture, have been supplying prospective builders with plans for various types of farm structures. This book brings together a selection of these plans which, in general, are adapted to the 12 Southern States and are available through their agricultural extension services.

The plans were selected by agricultural engineers and extension specialists representing the United States Bureau of Agricultural Chemistry and Engineering and the colleges of agriculture and extension services of the Southern States to illustrate building recommendations for dwellings, barns and shelters, storages for farm

products and equipment, and for other purposes. The construction recommended is safe and economical. The appearance of the building is planned to harmonize with types prevalent in the region.

Working drawings for the construction of these buildings may be obtained at low cost through the county agricultural extension agent or from the extension agricultural engineer at the address of the State college or university shown on page 3.

The county agricultural agent can usually supply information about other farm-building plans particularly suitable for special climatic or local conditions in the State. Recommendations for ventilation and insulation of structures vary with the latitude and altitude; also, city ordinances and State health regulations governing the sale of whole milk differ sufficiently to require that dairy-barn and milk-house plans be approved locally.

Special drawings to meet individual needs are not furnished by the agricultural colleges and extension services. The services of architects and reputable commercial agencies are recommended for altering these plans for special requirements and for the specifications of materials different from those shown.

**Before initiating the construction of dairy barns and milk houses your milk control officials should be consulted for approval of the proposed location, arrangement, and construction details.**

# PLANNING FOR LOCAL CONDITIONS

THE plans in this book were selected as being widely adapted to the region. This does not mean that each one of them is suitable to all localities. Before selecting a plan, the prospective builder should consult the county agricultural agent or the building specialists at the State agricultural college.

Most of the structures have gone through the test of actual use which has proved them suitable from the standpoint of sound construction, convenience, sanitation, and economy under the conditions for which they were intended. In most cases the book supplies a fairly wide range for selection. Plans of some structures because of their purpose are suitable anywhere.

The conditions within all the Southern States, or within any one State, are not uniform but differ as to temperature, rainfall, wind, and soil conditions. These factors must be considered in the construction of buildings because, in some instances, the drawings may not

provide for sufficiently deep foundations, enough insulation, adequate bracing, or suitable roof covering.

In general, the plans provide for concrete or brick foundations; frame, concrete block, metal covered, or brick superstructures, and wood or composition shingles or sheet metal roofing. In most cases the buildings can be erected equally well of other materials than those shown, the selection depending upon the skill of local builders in using them and upon local availability and prices.

Before deciding upon the type of construction to be used, it is advisable to learn the proper use and compare the advantages and cost of new materials and equipment with those that are commonly used. Local dealers can usually furnish information about the use and cost of materials, etc., that they handle and often can supply booklets prepared by manufacturers or trade associations to illustrate the correct and economical use of other products.

Various methods of construction are described and advice on building problems given in bulletins listed on pages 122 and 123. Most agricultural colleges have similar bulletins dealing with building practices in their States.

The cost of a structure cannot be estimated correctly without information on many variable factors such as the quantity, quality, and local prices of material, rates



of wages, the amount of materials and labor supplies by the farm and whether the work is to be on the day-labor basis, on the basis of cost of material and labor plus a certain bonus, or by contract. Farm buildings require somewhat less cash than city buildings because farmers usually make use of their teams and labor for excavating foundations and cellars, hauling building materials, and often work along with mechanics in all building operations.

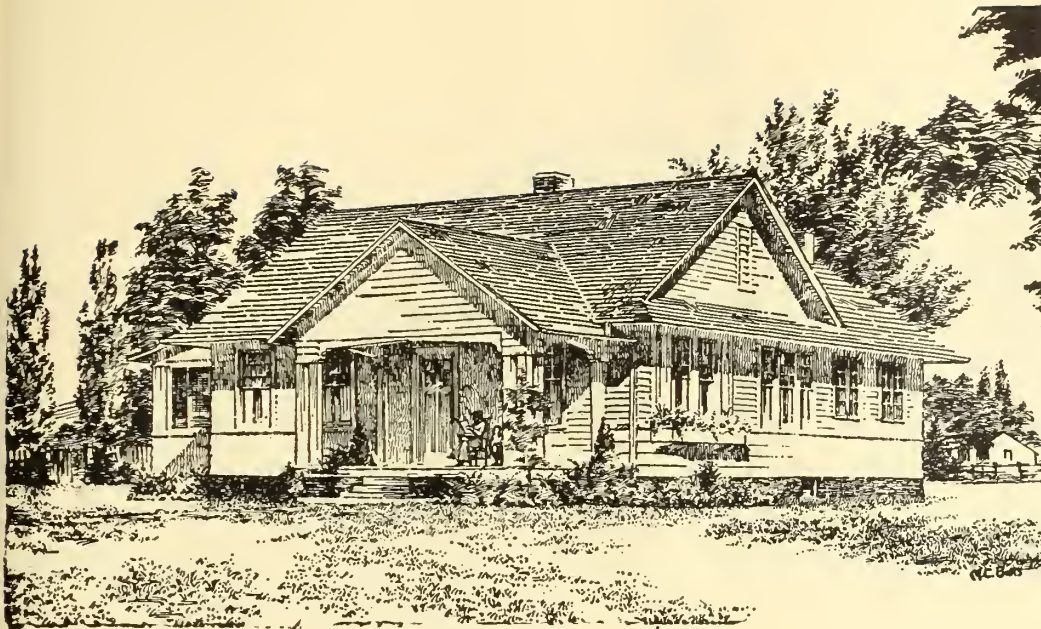
The most accurate method of ascertaining the cost of construction work is to submit the plans and specifications to two or three local builders and obtain written bids for the complete work. All bidders should be required to submit bids on the same quality of materials, equipment, and workmanship.

The amount of commercial material and skilled labor that can be utilized depends upon the money available. If cash is limited it is often possible to build or make

improvements provided purchased materials and hired labor are supplemented by materials obtained from the farm and by the owner and the family doing more of the work. Where there is little cash a greater quantity of home-processed material must be used and a longer time must be taken to build than if material can be bought and labor hired as needed. However, in choosing materials, cost can sometimes be saved by selecting those that require a minimum of skilled labor and tools to install, even though the material itself may be somewhat high in price.

In many sections timber is plentiful and can be used as home-sawed lumber, logs, slabs, or poles, and riven into shingles or lath; sand and gravel are common in most localities; rock is available in some sections; earth can be used for walls under certain circumstances; and lime can be burnt in many areas. Shrubby from woods make attractive landscaping.

NOTE: In addition to the 15 farmhouses illustrated on pages 11-25, there are 40 houses illustrated in Farmers' Bulletin 1738 Farmhouse Plans, which is available without charge from the United States Department of Agriculture, Washington, D. C., as long as the free supply lasts. These houses range in size from 2 to 8 rooms. Several can be started as two-, three-, or four-room units and enlarged later. These 55 houses furnish a wide choice to meet different living requirements.

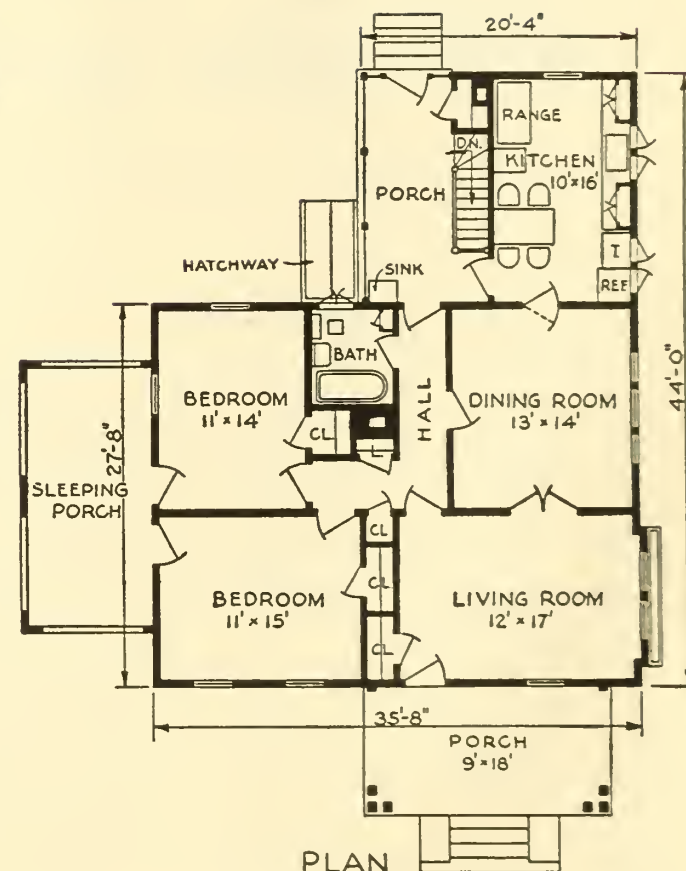


## FIVE-ROOM FARMHOUSE

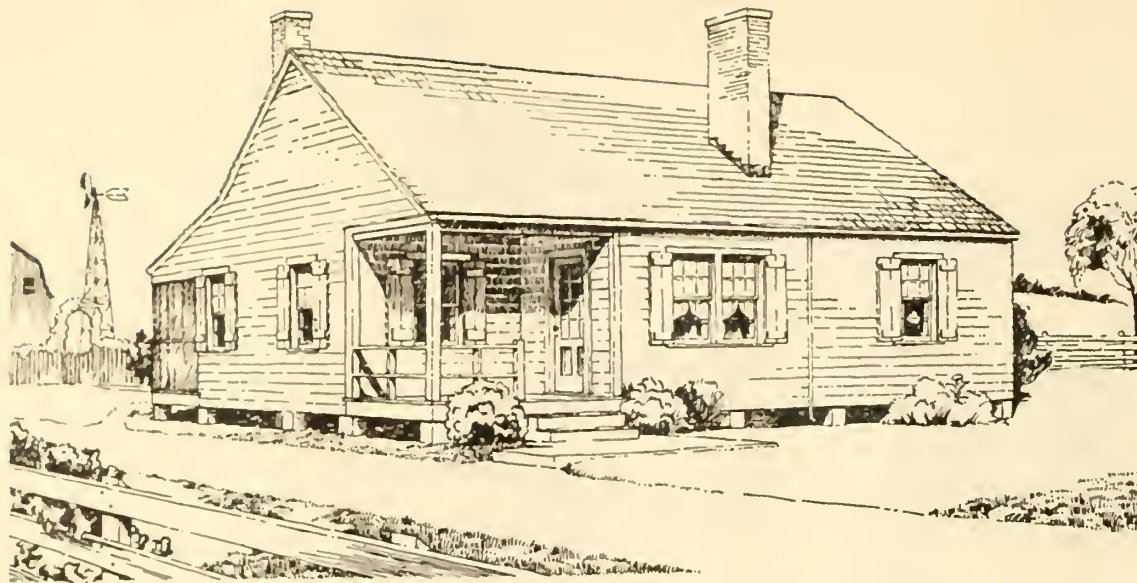
Designed especially to provide many features conducive to comfortable living in the South. Note the large sleeping porch accessible from both bedrooms; bathroom convenient to rear porch and bedrooms; ample closet space and useful front and rear porches.

The kitchen is located so that work may be carried on with a minimum of interference from traffic, yet there is free communication between front and rear. There is a part basement for a central heating plant, fuel, and storage.

Drawing No. 710-5054 (3 sheets)







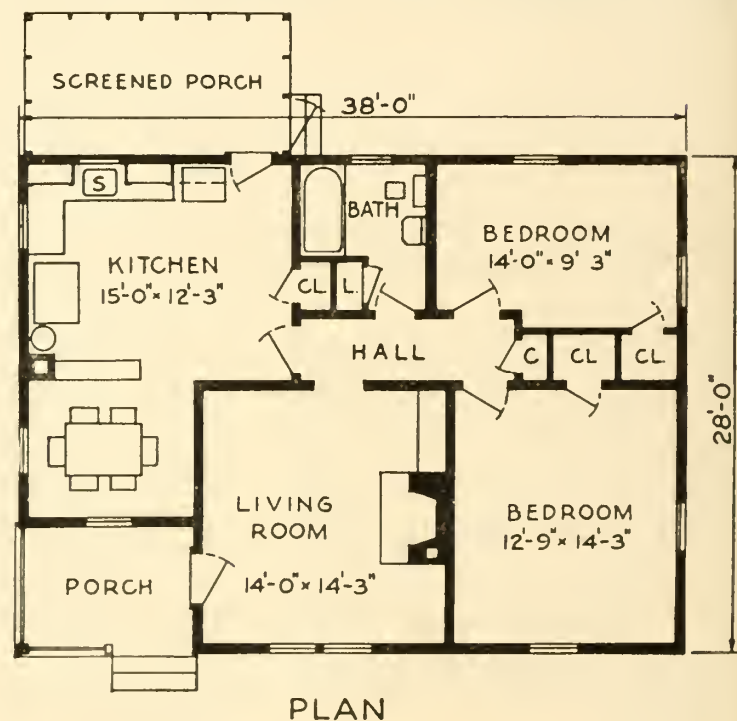
## FOUR-ROOM FARMHOUSE

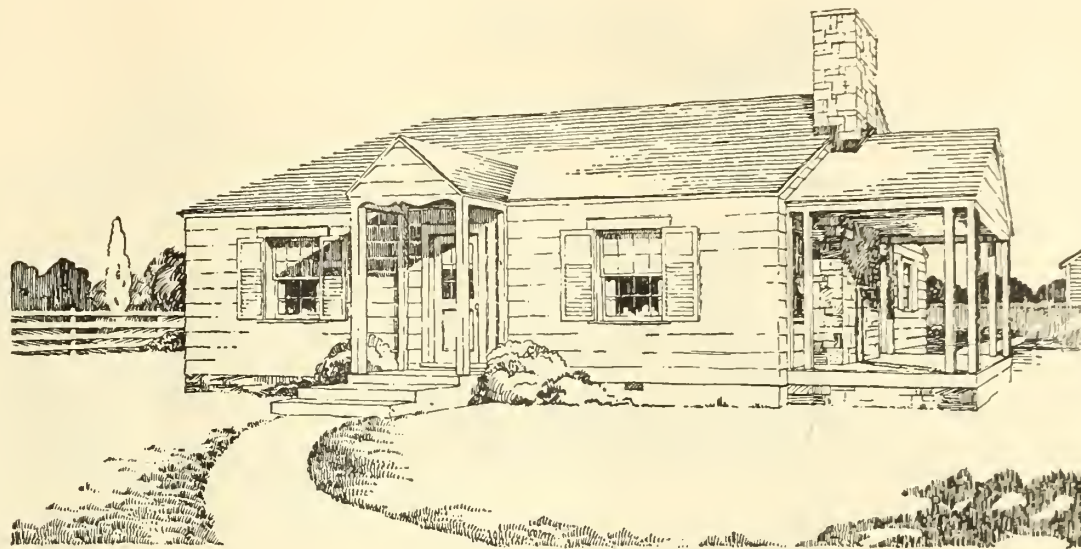
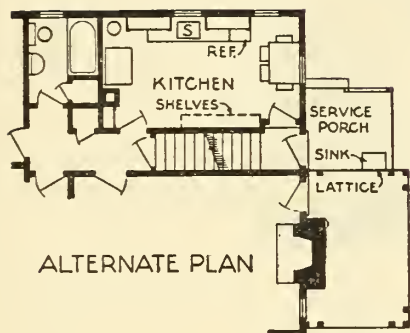
The large screened work porch and a kitchen of sufficient size to serve for both kitchen and dining room makes this farmhouse plan well suited for many average-size families.

Passage from the back porch to the rest of the house is provided without interfering with work in the kitchen. A flue connection is provided for a stove in

the front bedroom; or this room could be heated by connection to a special fireplace in the living room with an attachment for circulating warm air in another room. French doors might be desirable between the living and dining rooms, if all of the living-room wall space is not needed for furniture.

Drawing No. 710-5539 (2 sheets)





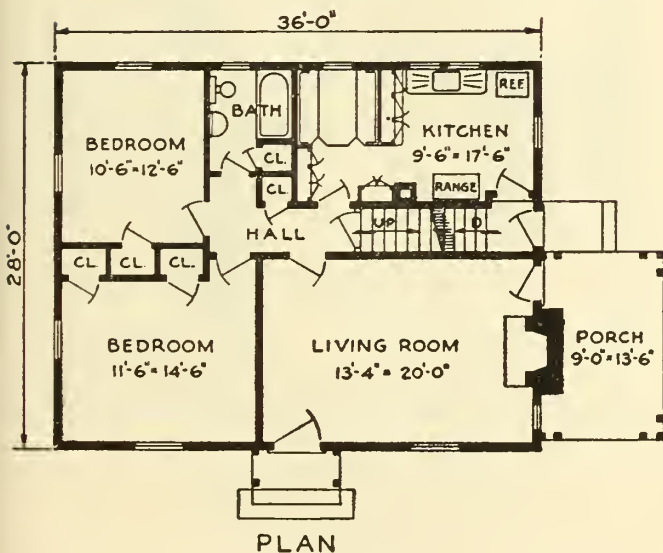
## FOUR-ROOM AND ATTIC FARMHOUSE

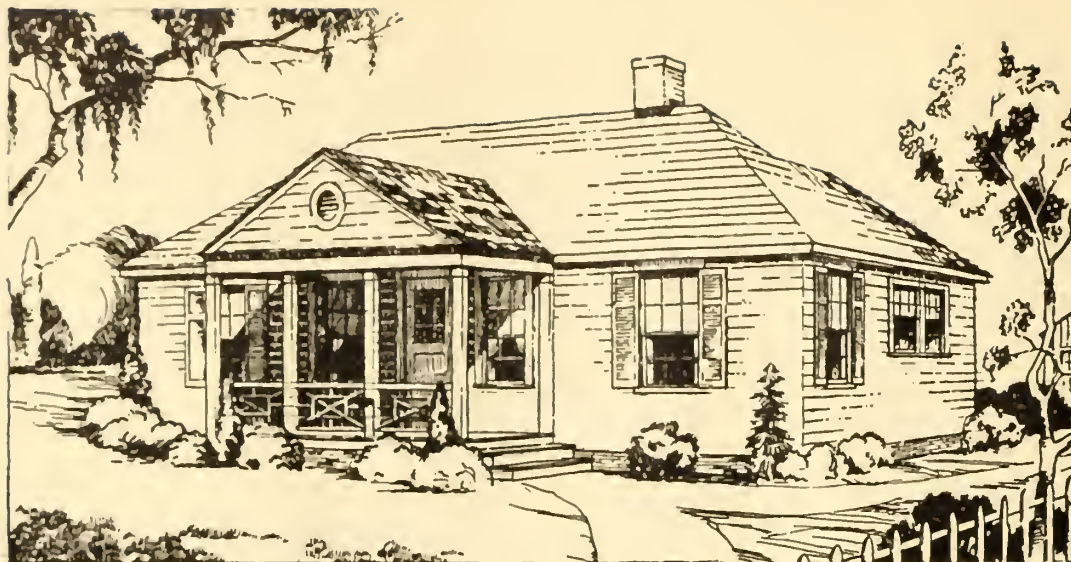
A story-and-attic house of pleasing design. Two dormer windows would be needed in case additional sleeping rooms are desired, and a glance at drawing No. 5545, page 18, shows how this could be carried out without destroying the symmetry; or a continuous dormer on the rear could be built. Otherwise the attic is useful merely for storage.

The house is planned for central heat with basement extend-

ing only under the living room and stair well. An alternate arrangement of the kitchen is suggested, if a built-in dining nook is not wanted. A good-sized service porch with a wash sink could be added, separated from the dining porch by a lattice. If the service porch is added it can be covered by a shed roof sloping from the ridge of the porch shown in the sketch above.

Drawing No. 710-5540 (3 sheets)

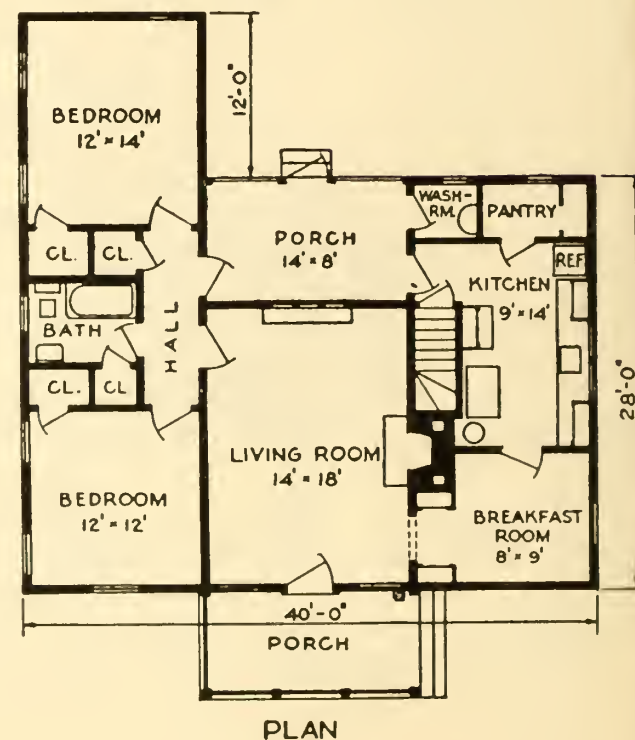




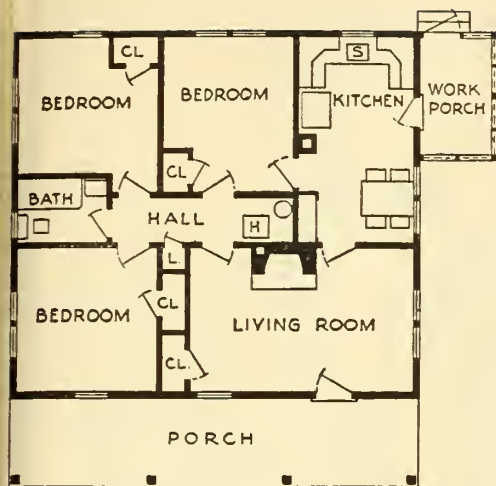
## FIVE-ROOM FARMHOUSE

A house of this type, with central living room, is well suited to southern conditions. The living room is adequately protected from the glare of midsummer sun, yet cross ventilation is available through windows above the bookcase. French doors could be substituted for the windows

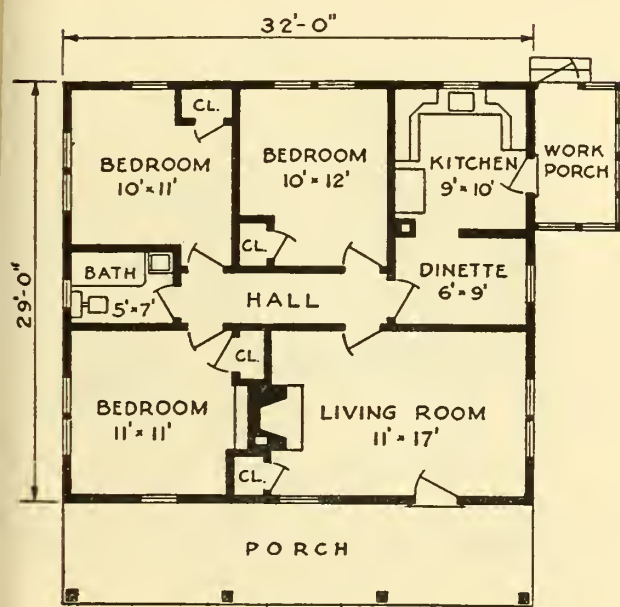
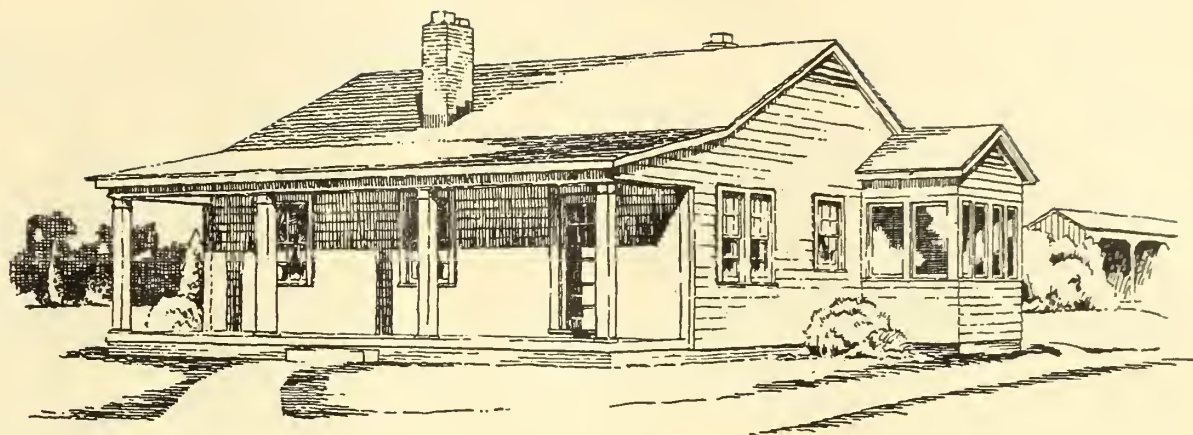
to gain more ventilation. The back porch with a handy wash-room gives convenient access to either side of the house. The breakfast room is connected to the living room by an archway. The house is planned for a central heating plant in the basement. Drawing No. 710-5541 (3 sheets)







ALTERNATE PLAN

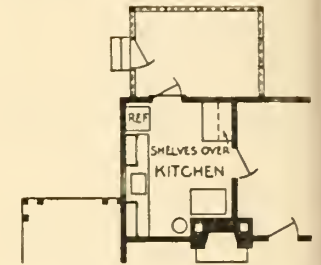
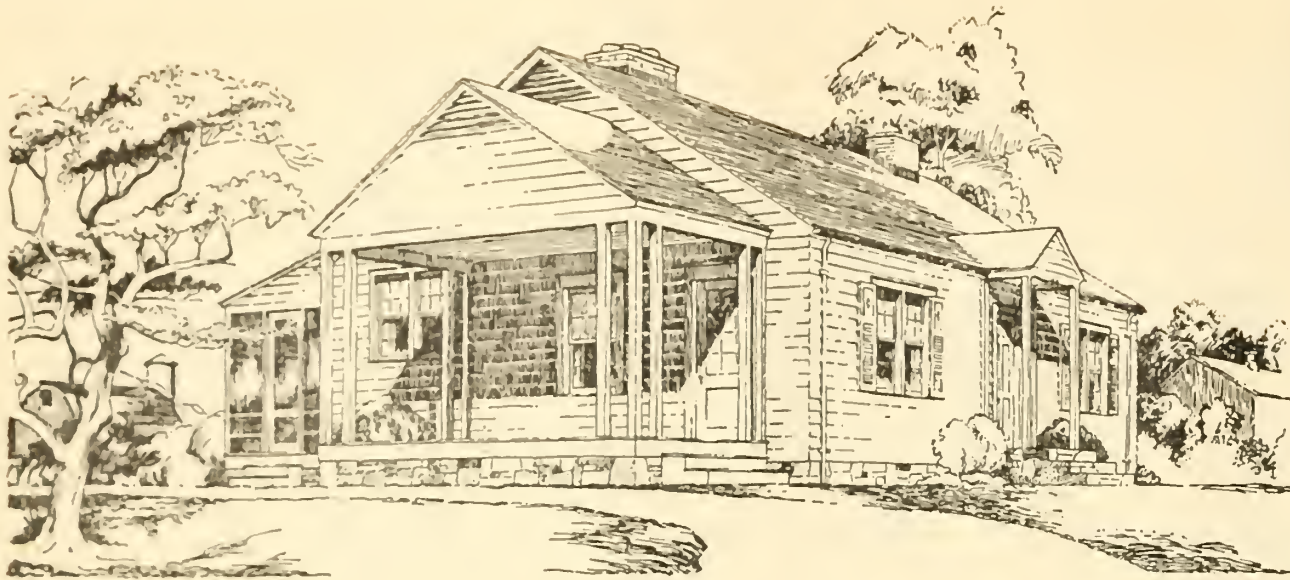


PLAN

## FIVE-ROOM FARMHOUSE

The full porch across the front is characteristic of many houses in the Piedmont and mountain sections. A special-type fireplace having warm-air-circulating attachment would warm both the living room and the front bedroom while a chimney between the two rear bedrooms would be required if they are to be heated by stoves. The alternate floor plan provides for a circulator heater in the hall and suggests a dining table in the kitchen instead of the dinette.

Drawing No. 710-5542 (1 sheet)



ALTERNATE KITCHEN PLAN

## FIVE-ROOM FARMHOUSE

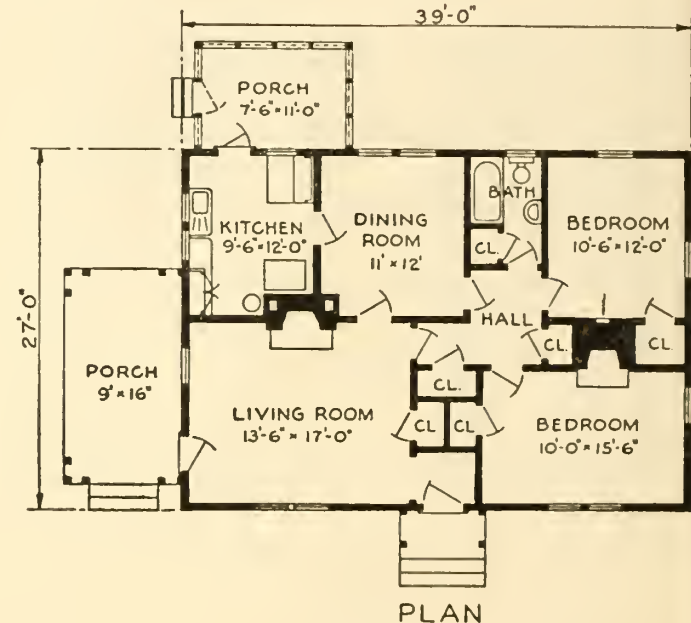
This plan is similar in room arrangement to that of drawing No. 5546, page 19. The two fireplaces and a kitchen range will provide ample heat for most sections where mild winters prevail. If necessary, a special fireplace with warm-air attachment might be used to heat both the front and rear bedrooms. A circulator heater or heating stove could be placed in the dining room, connecting with

the chimney in the living room.

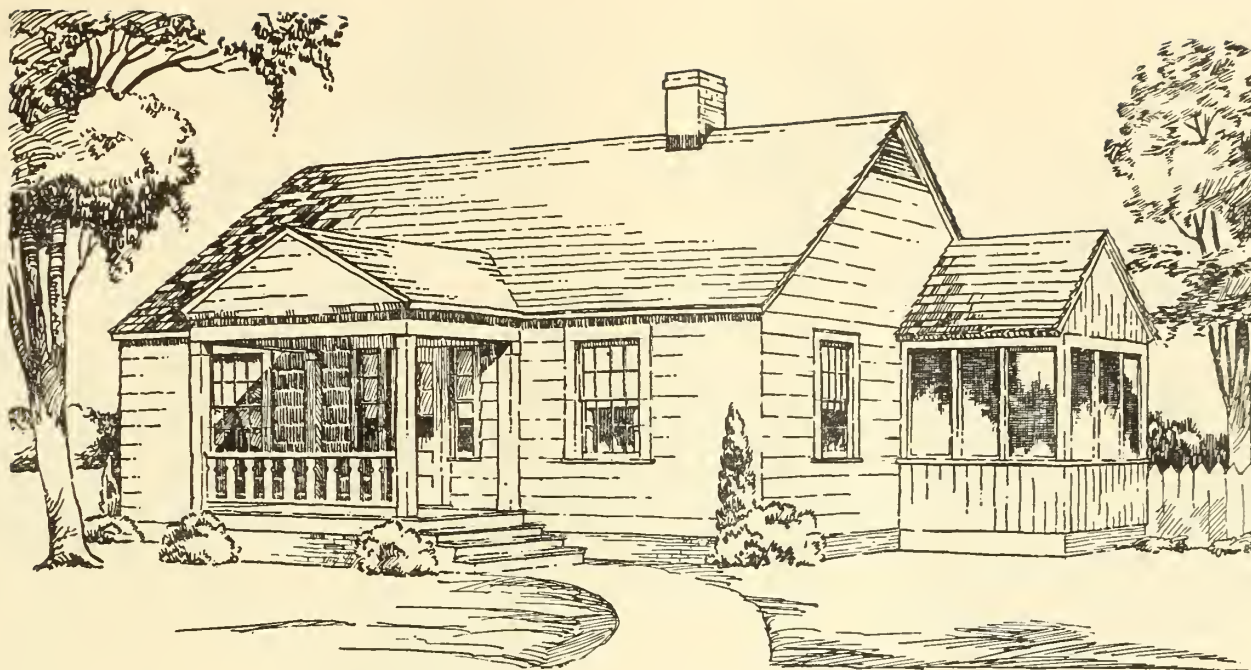
Note the large amount of closet space, so often lacking in farmhouses. The space occupied by the bedroom fireplace and closets could be utilized for a hall leading to an extra bedroom as shown in drawing No. 5545.

The alternate kitchen arrangement provides additional cabinet space but sacrifices one of the windows over the sink.

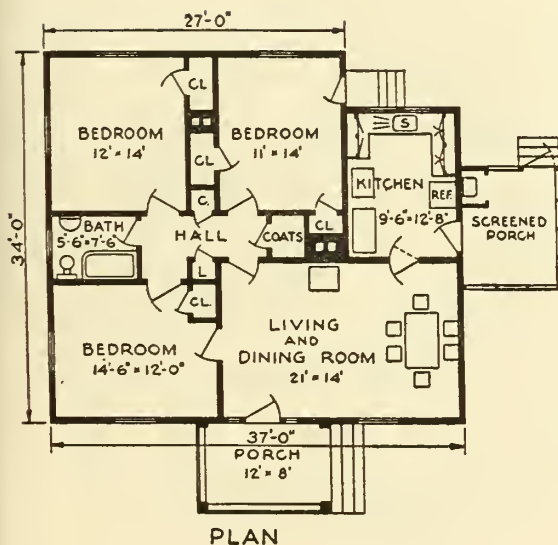
Drawing No. 710-5543 (3 sheets)







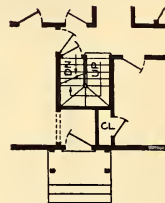
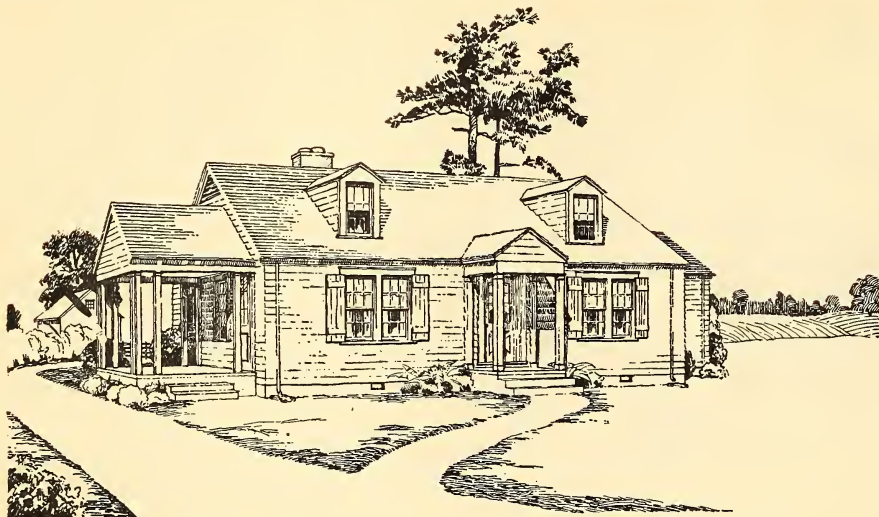
## FIVE-ROOM FARMHOUSE



This five-room house with kitchen, combination living-dining room, and three bedrooms provides adequate accommodations for a good-sized family. The work area of the kitchen is compactly arranged for saving steps but is large enough for needed storage and equipment including an oil stove for summer cooking. The screened back porch is a comfortable place for summer work and the wash sink will be of great convenience.

The house is intended to be heated by a circulator heater in the living room and a similar heater or a stove in one or both of the back bedrooms. The outside door to the bedroom next to the kitchen provides for ventilation in summer and for bringing in fuel in winter. The front bedroom should be sufficiently warmed by overflow heat from the rest of the house.

Drawing No. 710-5544 (2 sheets)



ALTERNATE PLAN  
SHOWING STAIRWAY

## SIX-ROOM FARMHOUSE

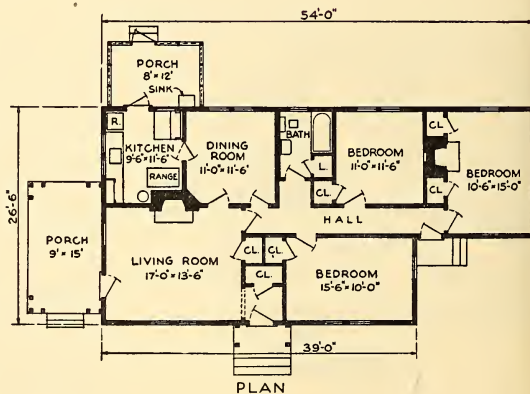
This will appear from the front as a rather large house. The dormer windows provide light for usable space upstairs. Access to the attic can be had by locating stairs as suggested in the small sketch. The large end bedroom with a fireplace could be used for an office or study.

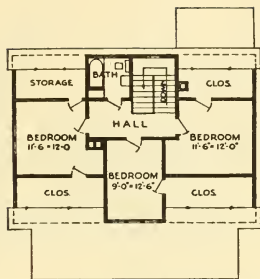
By using a special-type fireplace in this room the other rear

bedroom could also be heated. In colder regions a central heating plant in a basement might be desirable. A basement, if built under the kitchen and dining room, could be reached by a hatchway from the rear porch.

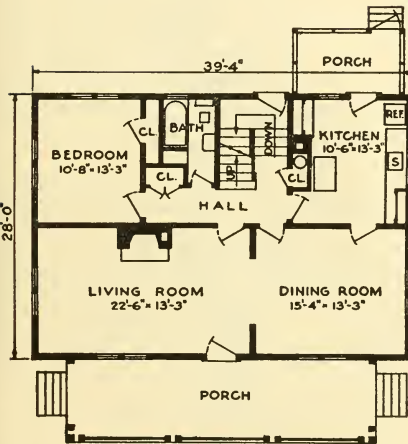
The alternate kitchen plan shown with design 5543 could also be used in this house.

Drawing No. 710-5545 (3 sheets)

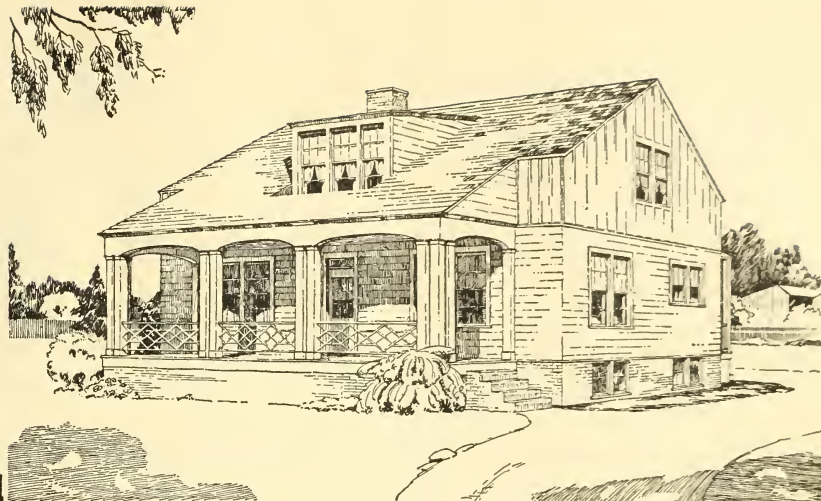




SECOND FLOOR PLAN



FIRST FLOOR PLAN



## SEVEN-ROOM FARMHOUSE

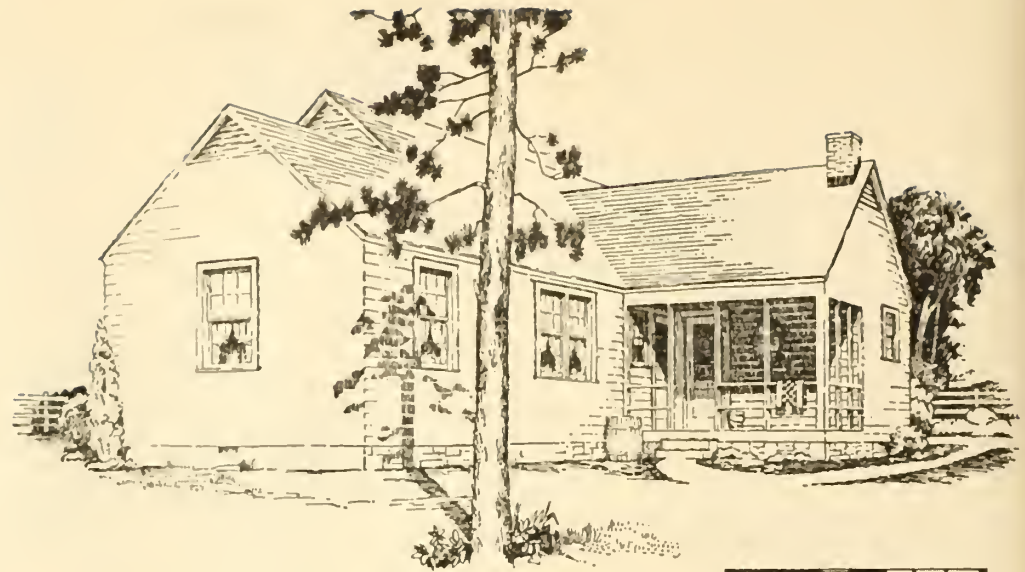
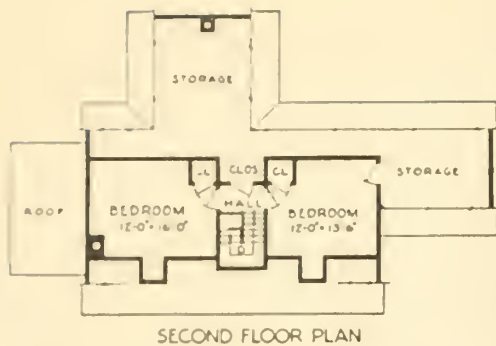
This design may well answer the needs of a large family, since it contains four bedrooms and a living room and dining room that are practically one. A grade door opening onto the stairs is happily planned to keep traffic out of the kitchen, which is none too large

for a house of this size. However, the small size will save steps for the housewife.

Ample storage space is provided on the second floor under the eaves and in the basement.

Drawing No. 710-5546 (4 sheets)





## EIGHT-ROOM FARMHOUSE

This house can be built without the right-hand bedroom and without finishing the upstairs bedrooms. When completed it will provide ample sleeping quarters for a large family.

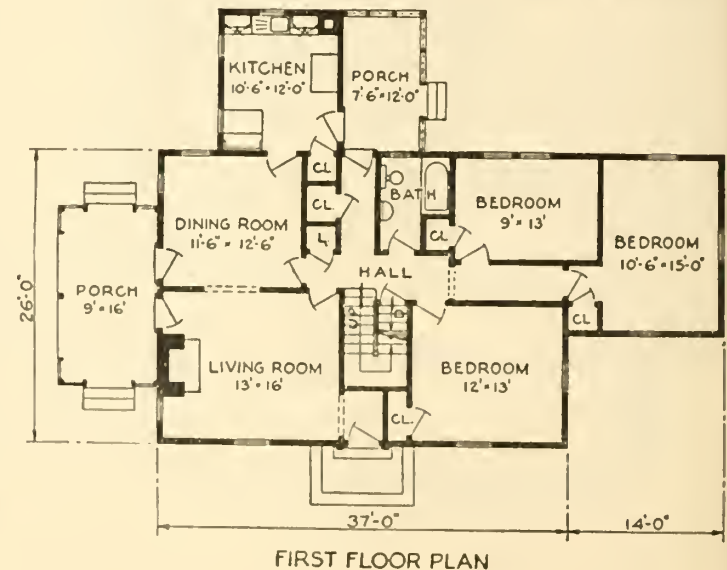
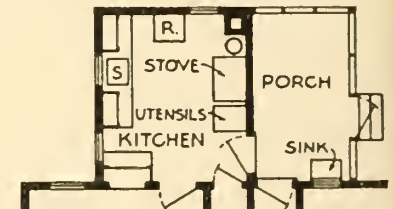
The front view of this house is very similar to the view shown in drawing No. 5545, page 18. The perspective, here illustrated, is taken from the rear to show the kitchen and rear-hall entries. This porch should be screened for protection from insects.

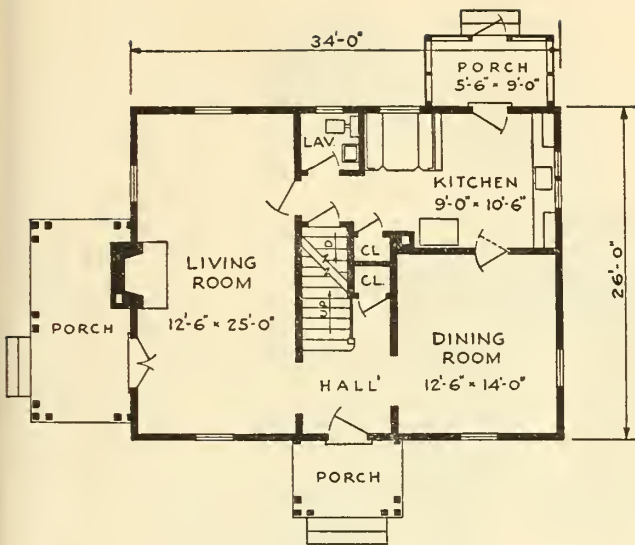
The location of the kitchen is ideal for warm climates because of its isolation from the sleeping and

living quarters and ventilation on three sides. An alternate arrangement of the kitchen is shown, which provides for a pass cabinet into the dining room, in case meals are not to be served in the kitchen. The wash sink on the porch should have a cold-weather cut-off.

As in the case of drawing No. 5054, page 11, the hallways provide direct access from porch to bathroom and cellar without passing through the kitchen—essential for convenient operation of a farmhouse.

Drawing No. 710-5547 (5 sheets)

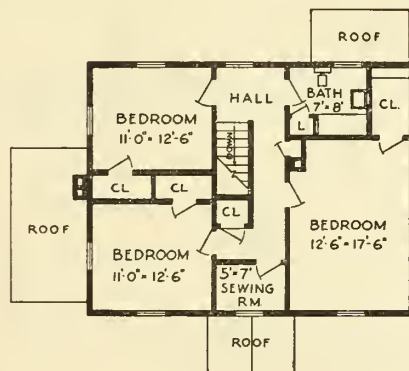




FIRST FLOOR PLAN



ALTERNATE KITCHEN PLAN



SECOND FLOOR PLAN



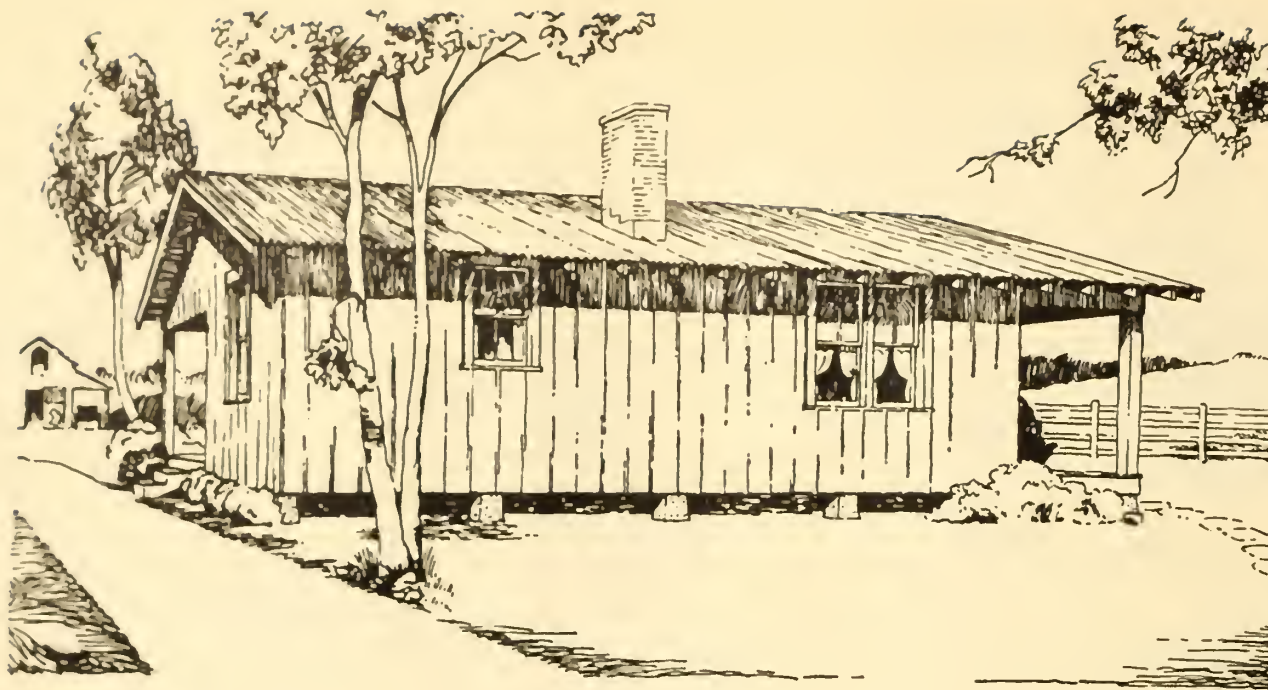
## SIX-ROOM FARMHOUSE

This six-room, two-story-and-basement house with a central hallway is particularly convenient for a family having diversified interests as either the living room or dining room may be used for study or entertaining, and together they provide space for a large gathering. Wings attached at one or both ends of the house fit into the architectural style if a downstairs bedroom or additional space is needed. The large living room, com-

pact food-preparation and service area, and downstairs lavatory are all desirable features for a farm residence. The walls may be of timber, stone, or brick. The house is planned for a central heating plant in the basement. The alternate kitchen plan suggests a location for a mechanical refrigerator in the kitchen and use of a plain kitchen table instead of a dinette.

Drawing No. 710-5548 (3 sheets)



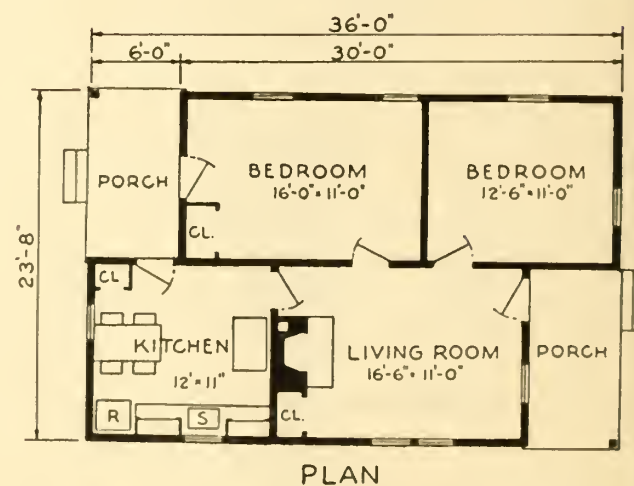


## LOW-COST FOUR-ROOM FARMHOUSE

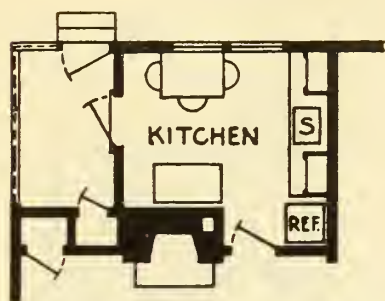
This is a practical design for a low-cost house. Studs used only at openings and corners, vertical boards for siding, galvanized corrugated roofing on slats, and pre-cast concrete pier foundations reduce the quantity of material required to a minimum. The

fireplace and a flue for the kitchen stove are warranted for comfort on chilly days. Screening is desirable, and in colder sections of the South, additional insulation and an enclosed foundation would be advisable.

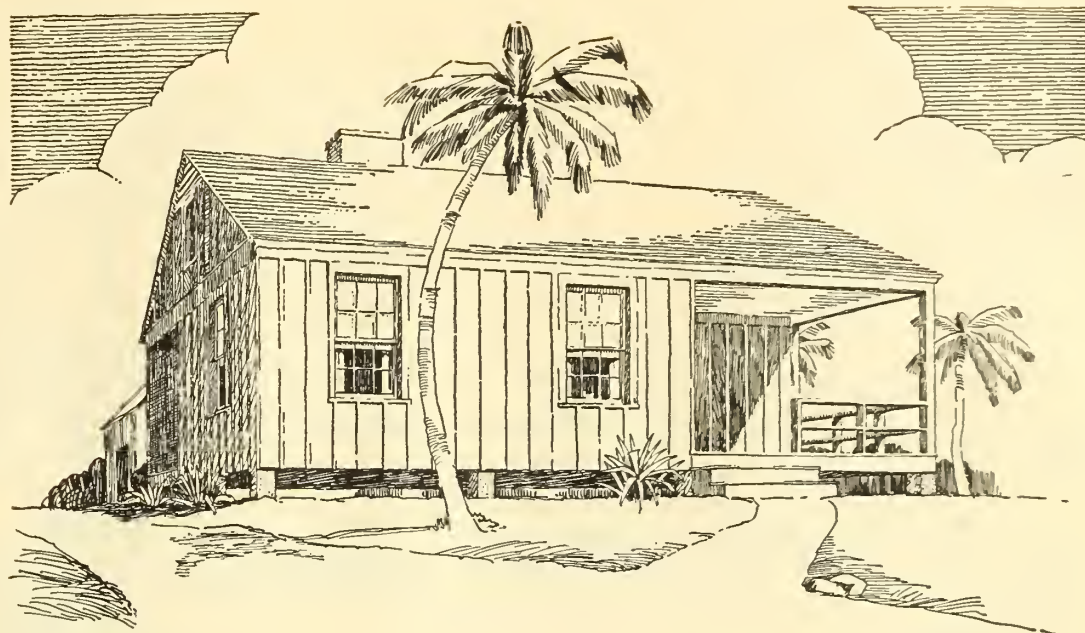
Drawing No. 710-5050 (1 sheet)



5050



ALTERNATE KITCHEN PLAN



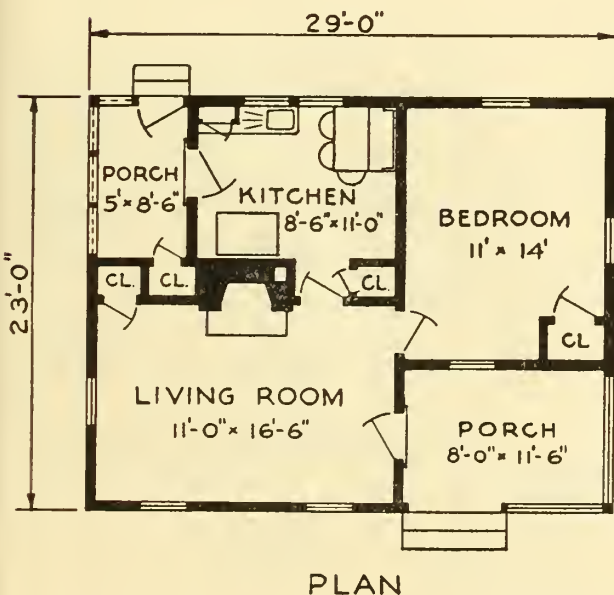
## LOW-COST THREE-ROOM FARMHOUSE

The structural features and simplicity of design of this small house automatically place it in the low-cost field. It will be found useful on the small farmstead or as a house for help on a larger estate.

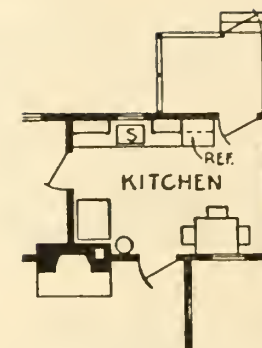
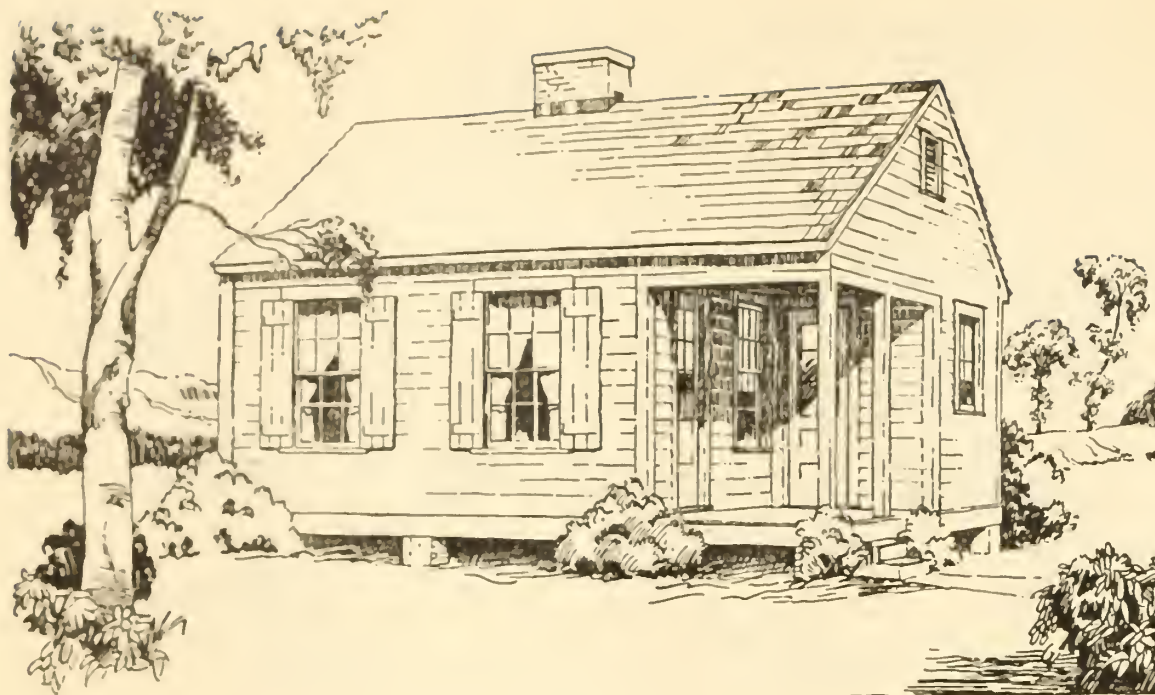
The closet on the rear porch is valuable as a place for the storage of work clothes. If more

closet space is needed in the bedroom, another closet might be built on either side of the rear window. The alternate kitchen lay-out places the sink on an inside wall but provides more shelf room at the sink and a place for a mechanical refrigerator.

Drawing No. 710-5536 (2 sheets)







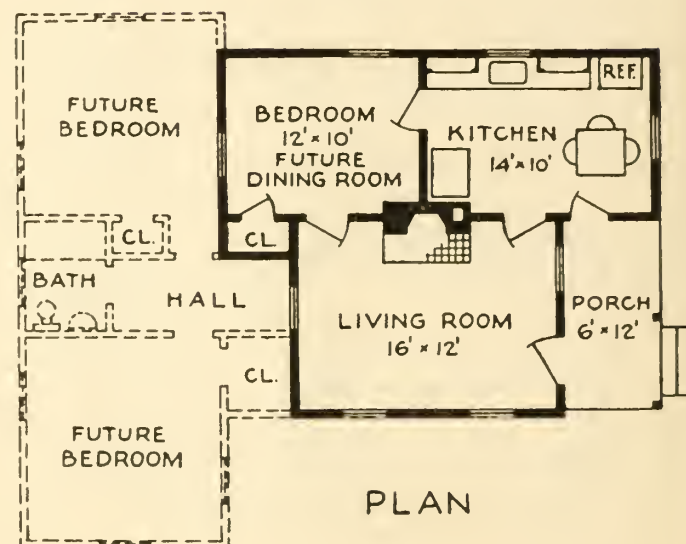
ALTERNATE KITCHEN PLAN

## LOW-COST THREE-ROOM FARMHOUSE

Designed for the needs of a growing family, this house has much in its favor. Without the extension, it offers a solution for the small-house problem. The kitchen is well-planned with direct access from bedroom (future dining room), living room, or porch. A flue in the fireplace chimney provides for a stove in the kitchen. A

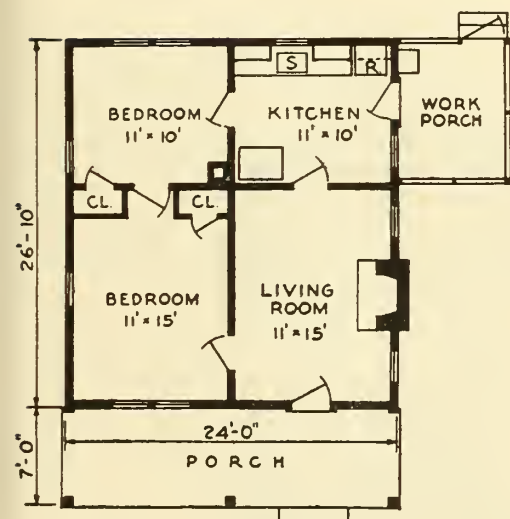
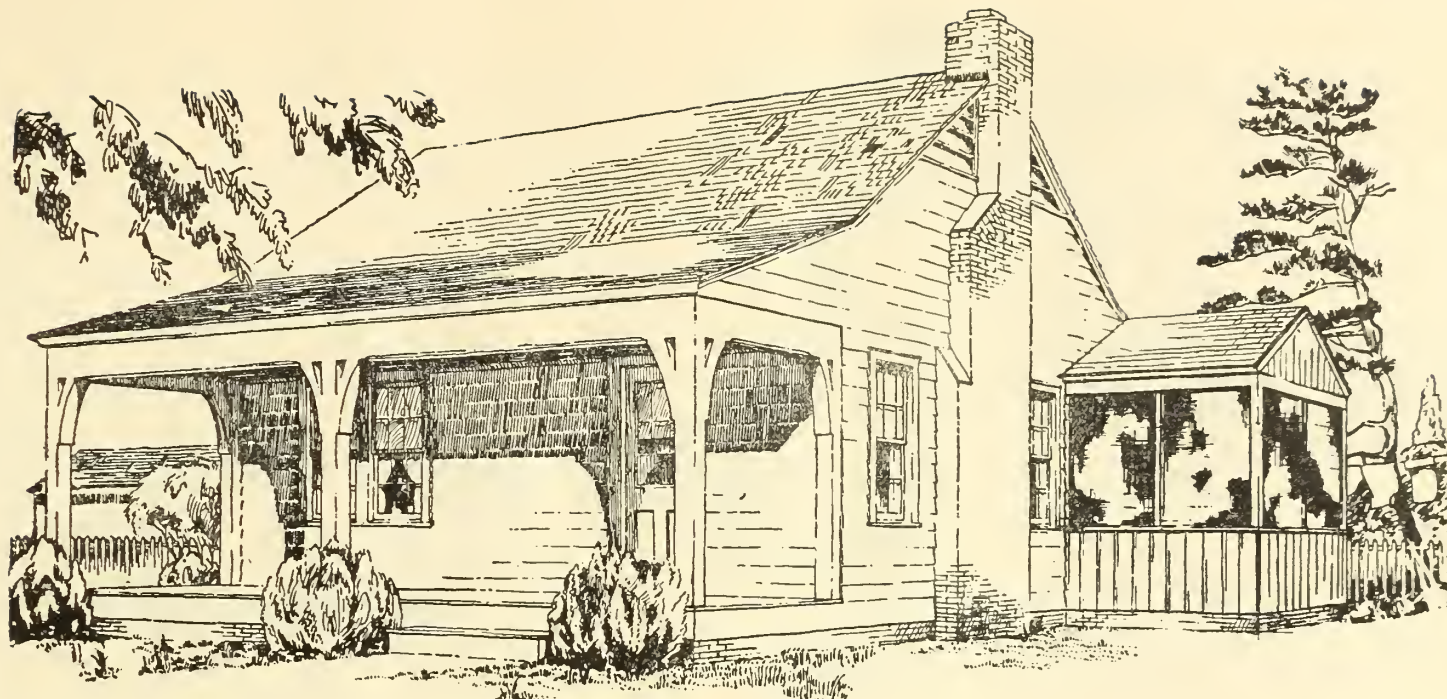
lattice and a second flight of steps could be used to separate the kitchen end of the porch from the living-room entrance. The alternate kitchen arrangement shown provides for a rear entrance to the kitchen, but provides somewhat less cabinet space than the other arrangement.

Drawing No. 710-5537 (2 sheets)



PLAN





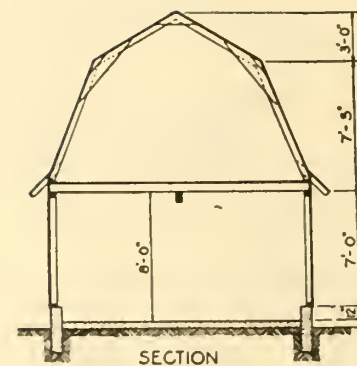
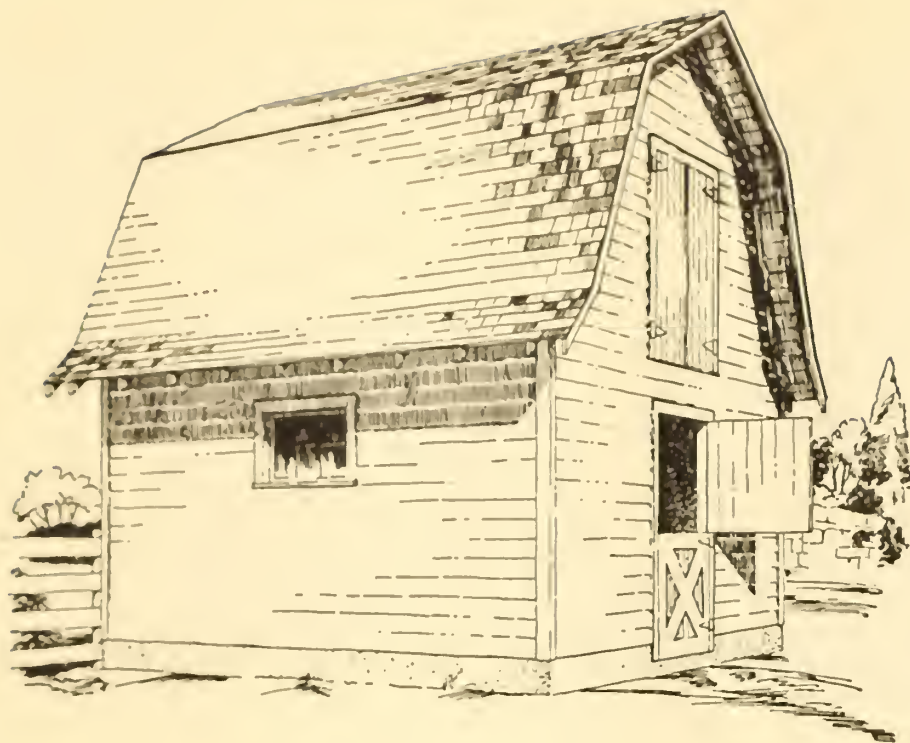
PLAN

### LOW-COST FOUR-ROOM FARMHOUSE

This pleasing modification of the "cabin" plan so widely used in the Southern States includes two bedrooms, living room, kitchen, and two porches.

The screened work porch, kitchen sink, cabinets, and closets are important aids to convenience of housekeeping.

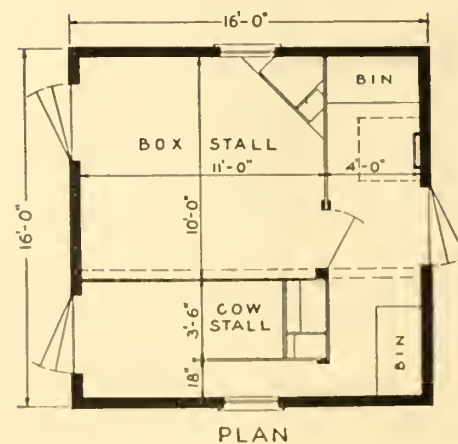
Drawing No. 710-5538 (1 sheet)

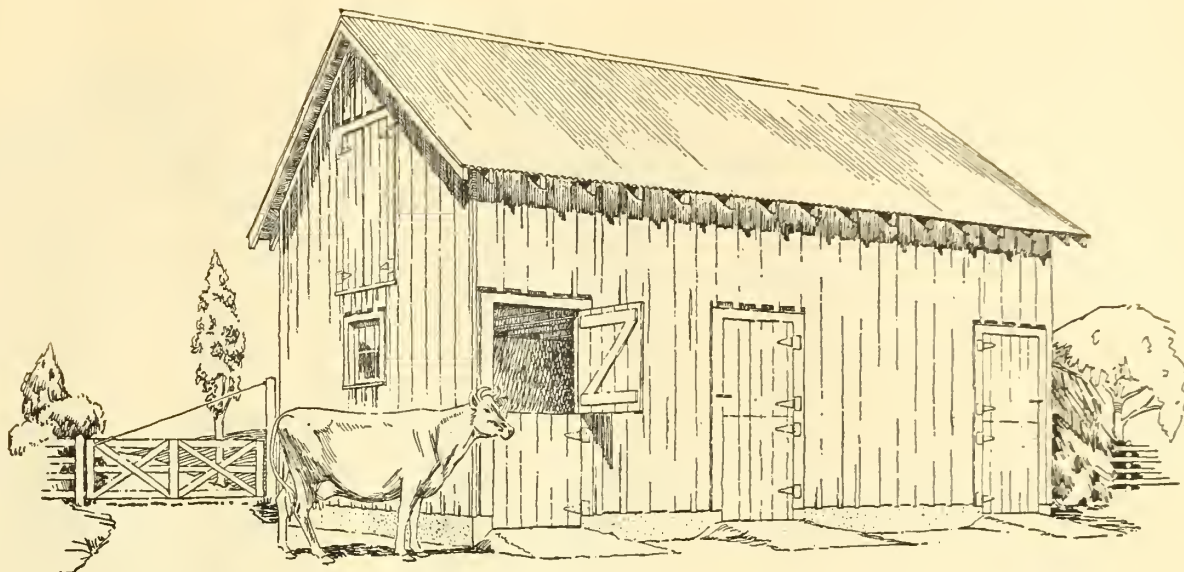
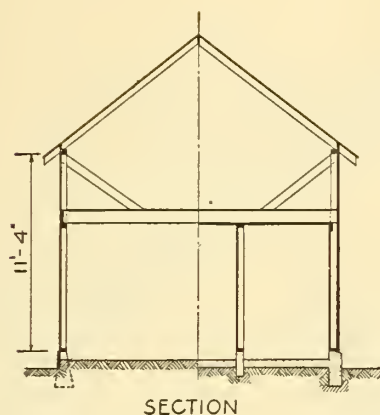


## GENERAL BARN

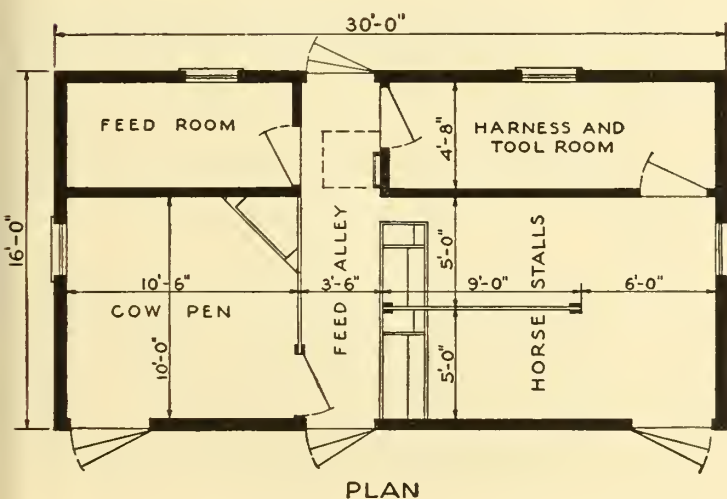
Small barns of this type are needed by tenants or for subsistence farms. The drawings suggest three floor arrangements providing for one to three animals and space for feed and implement storage. Mow capacity,  $2\frac{1}{2}$  to 3 tons of loose hay. Details are also shown for a one-story gable-roof structure.

Drawing No. 721 5166 (1 sheet)





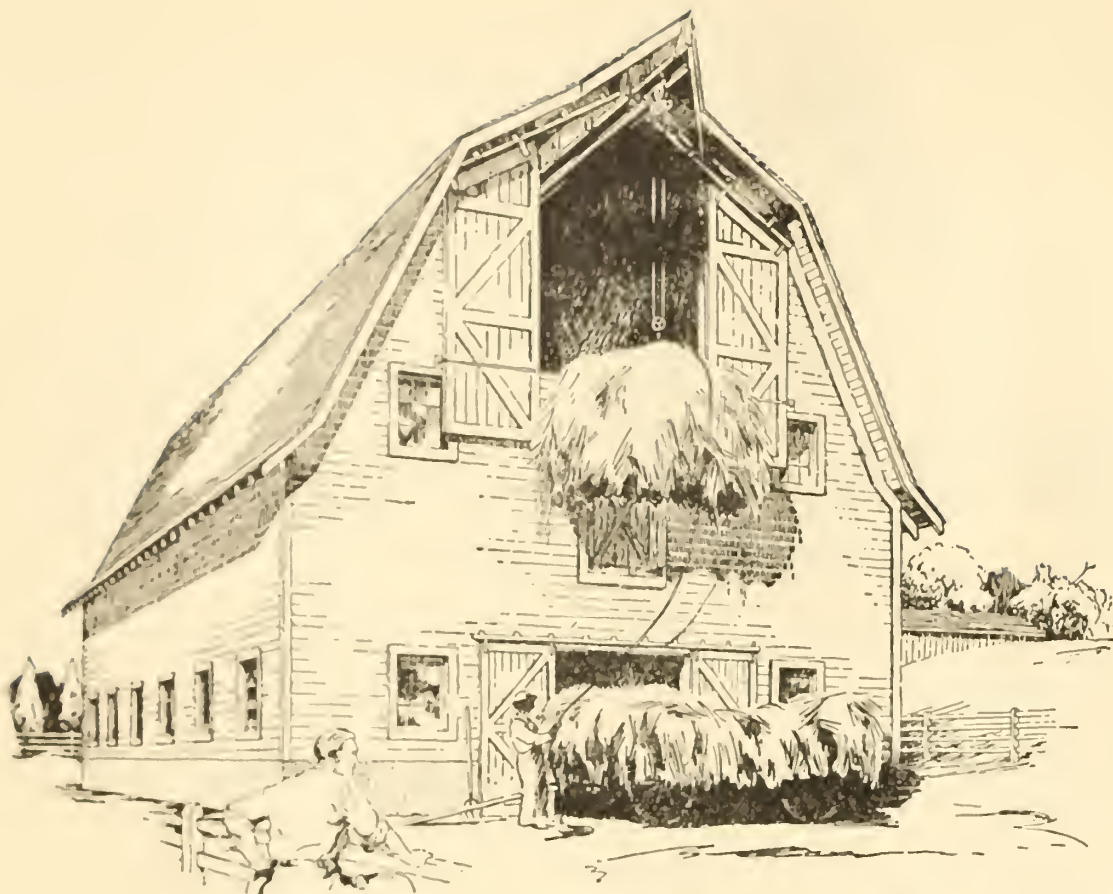
## GENERAL BARN



A practical barn for a small farm. To cut cost it may be desirable to use post-and-pier construction with vertical board siding. The large feed room is convenient on a small farm where separate buildings are not available for storage of chicken feed and other items. Full concrete foundations and sheathed walls covered with drop siding add to permanence and appearance. A gambrel roof can be used in place of the gable roof shown. Mow capacity, 4 to 5 tons of loose hay.

Drawing No. 721-5167 (1 sheet)

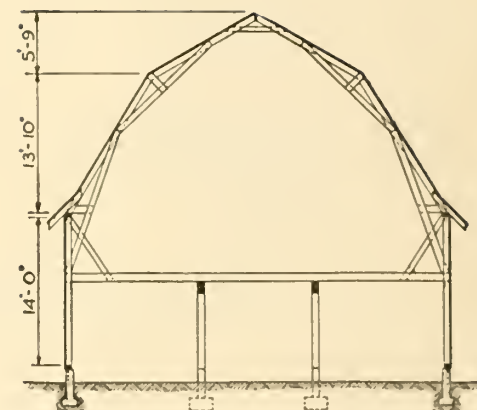




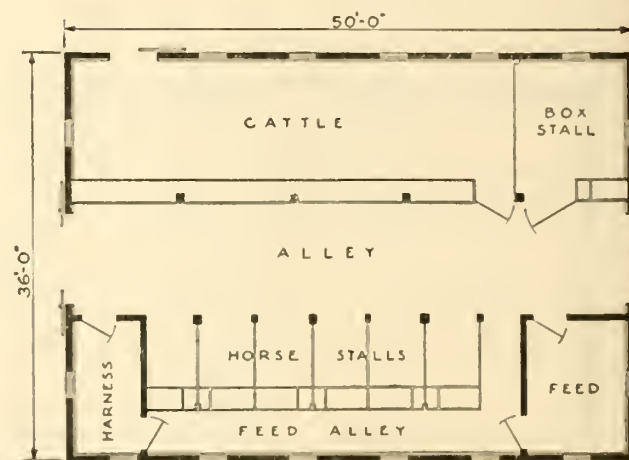
## GENERAL BARN

Designed primarily for a horse and cattle barn, this standard-width barn can be rearranged to house other combinations of stock or for only one kind of animal, which makes a practical

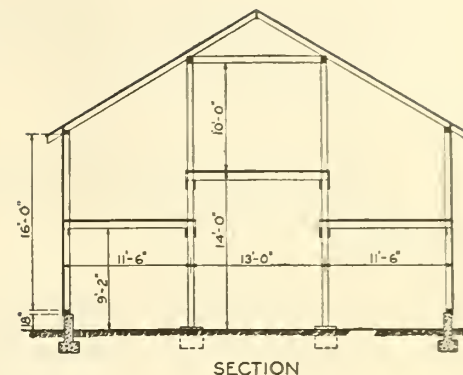
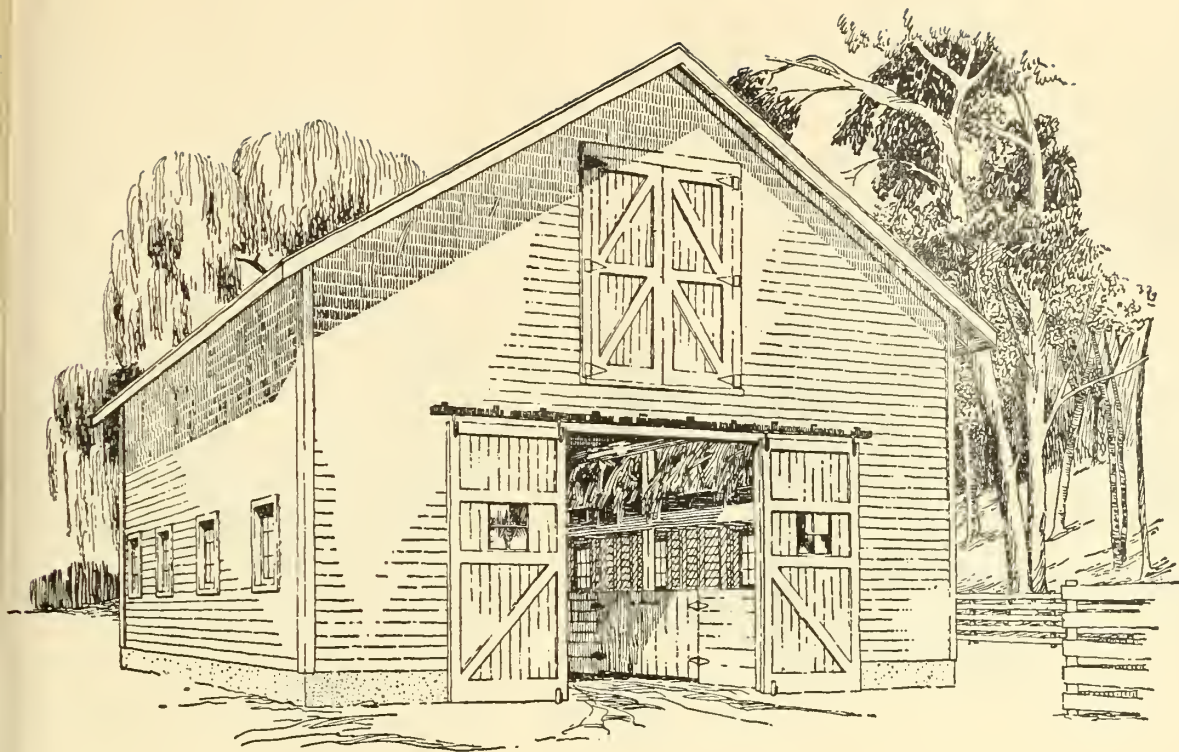
structure should the type of farming be changed. The large mow will hold 55 tons of loose hay, and 10 cattle can be accommodated in the large pen. Drawing No. 721-5550 (1 sheet)



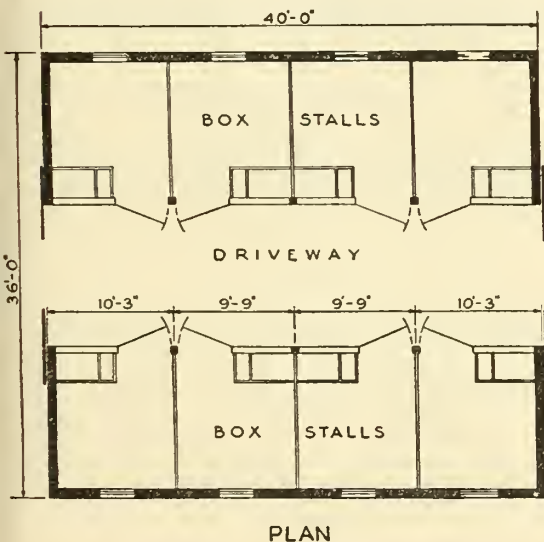
SECTION



PLAN



## GENERAL BARN



For riding horses or mules, this barn with eight box stalls is a useful addition to the regular barn on a large farm. If all the box stalls are not required, one side could be equipped with tie stalls or stanchions. A feed or harness room might be desirable. A special feature is the ample headroom in the driveway, making it feasible to ride horses within or through the stable. A corner manger may be preferred. Mow capacity, 38 tons of loose hay. While

the plans do not provide for a hay track, one should be provided.

Drawing No. 721-5551 (1 sheet)

**5551**

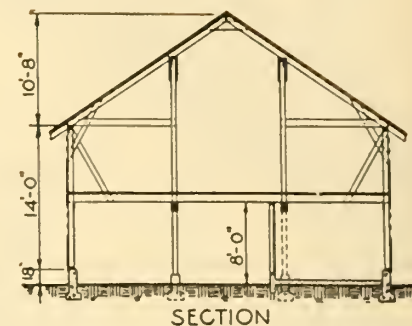
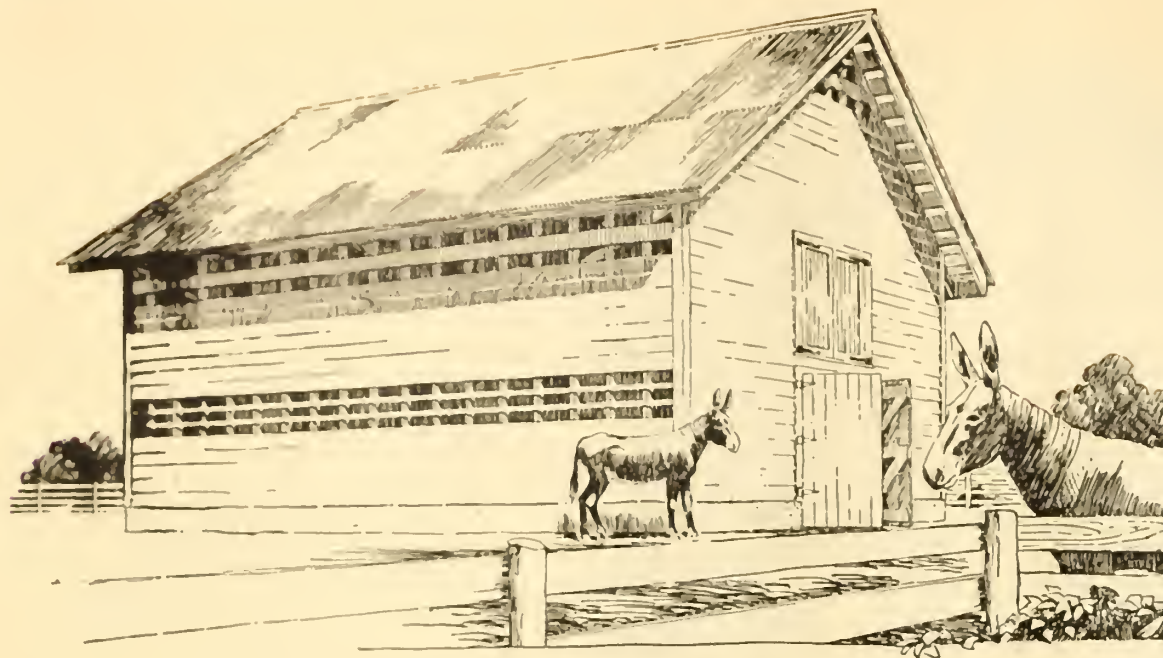
## General Barn

This barn is similar to drawing No. 5551. Five box stalls on one side; storage room, corn-crib for 480 bushels ear corn, and feed room on other side. Capacity of mow, 18 tons of loose hay. Size, 30 by 50 feet. (Not illustrated.)

Drawing No. 721-5549 (1 sheet)

**\*5549**



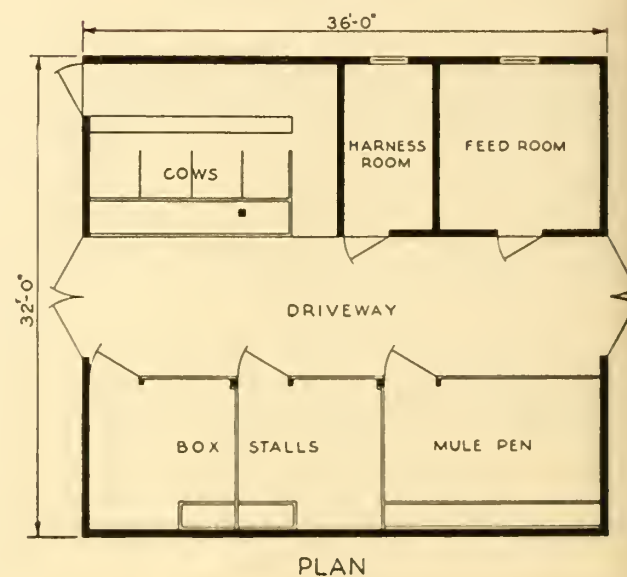


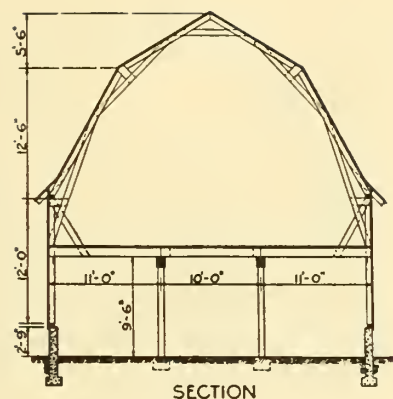
## GENERAL BARN

This barn is well braced and strong. The feed troughs would be more accessible if built near the driveway. The length can be readily increased to provide more floor space. The use of galvanized metal on the roof and of side-wall openings instead of

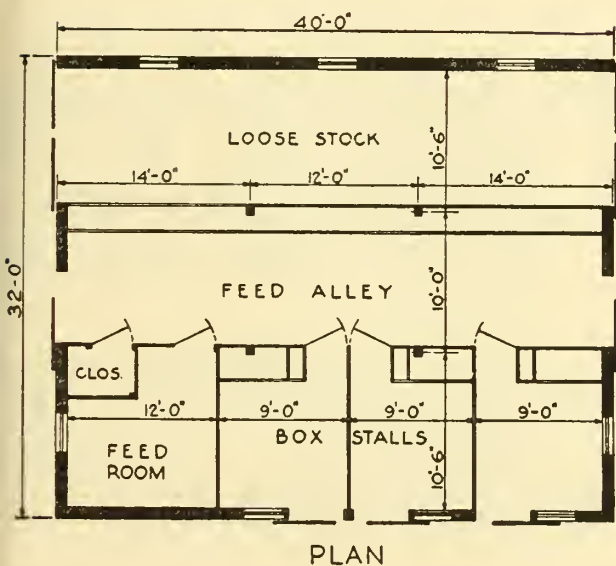
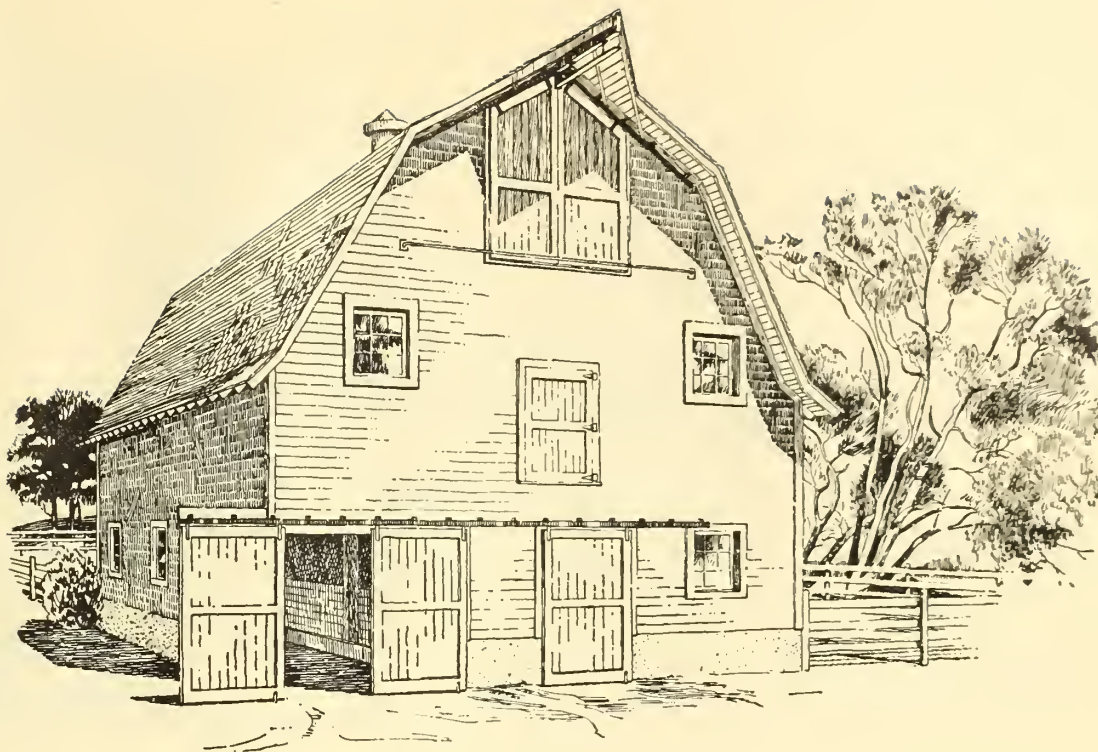
windows are southern practices. A hay door and track would save labor when mowing hay. Mow capacity, 25 tons of loose hay. The two box stalls and pen will accommodate five to seven animals.

Drawing No. 721-5552 (1 sheet)





SECTION



PLAN

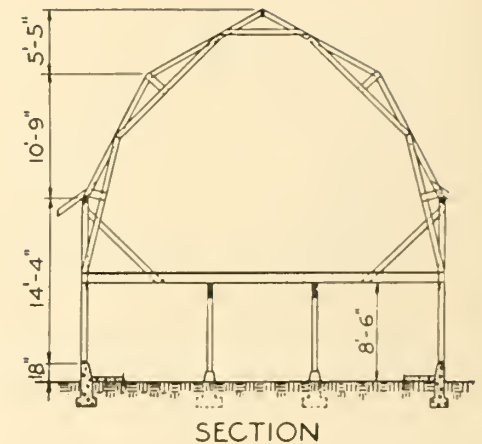
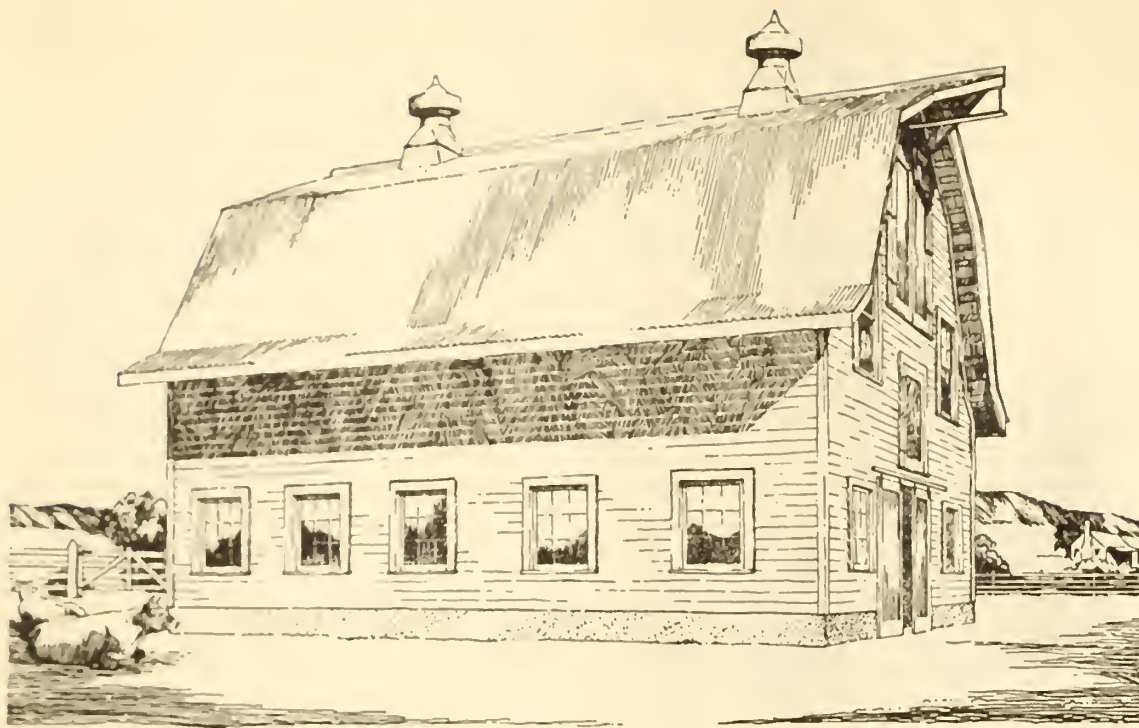
## GENERAL BARN

A small-scale breeder of beef cattle would find this floor arrangement particularly convenient as the box stalls could be utilized for maternity pens if they are made 10 feet wide and fitted with corner mangers; the feed room could be reduced in width.

Each box stall has an outside door. One stall could be fitted for a safety bull pen. The large pen will hold 10 head of stock. Mow capacity, 35 tons of loose hay.

Drawing No. 721-5553 (1 sheet)



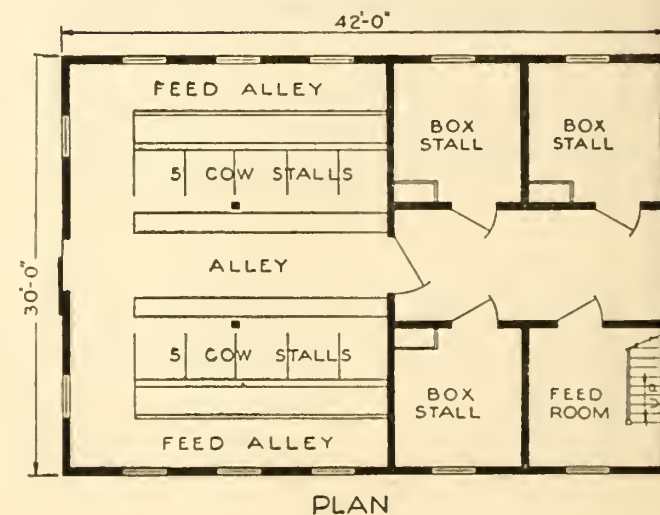


## GENERAL BARN

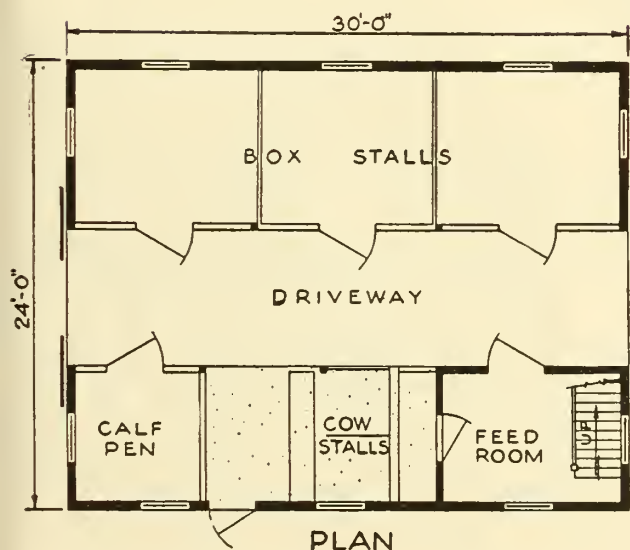
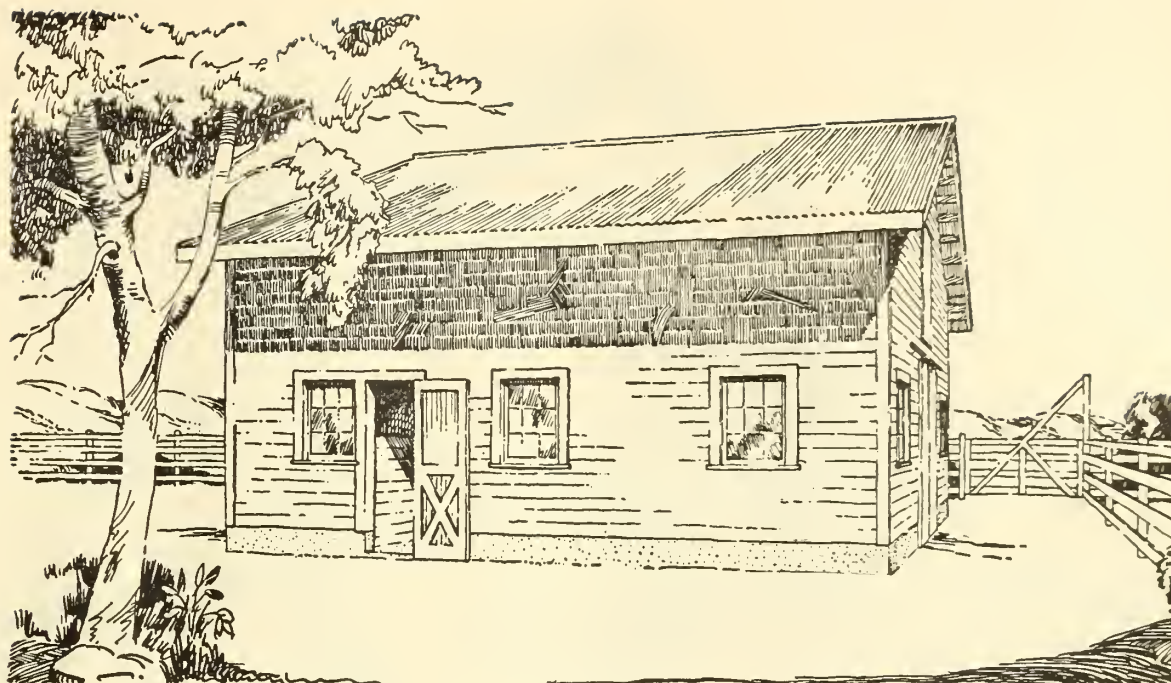
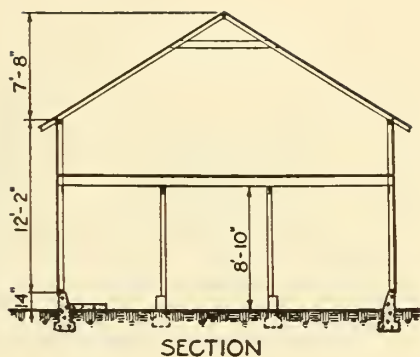
Two rows of stanchions are made feasible in this 30-foot-wide barn by reducing the usual width of the alleys. Market-milk regulations frequently require the cow section to be separated by a solid partition from the quarters of other stock and the inside of the walls and ceiling to be lined tight; the whole barn could be

utilized for dairy cattle by omitting the box stalls. Greater convenience in feeding would be had by locating the cross alley next to the partition. The feed room with stairs to the mow will be found convenient. Mow capacity, 35 tons of loose hay.

Drawing No. 721-5554 (2 sheets)



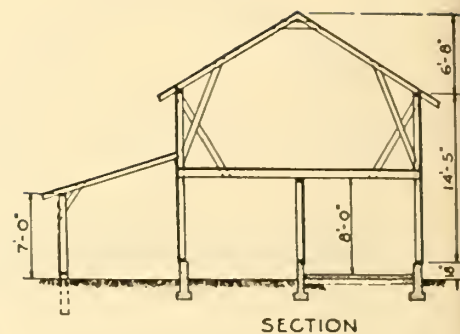
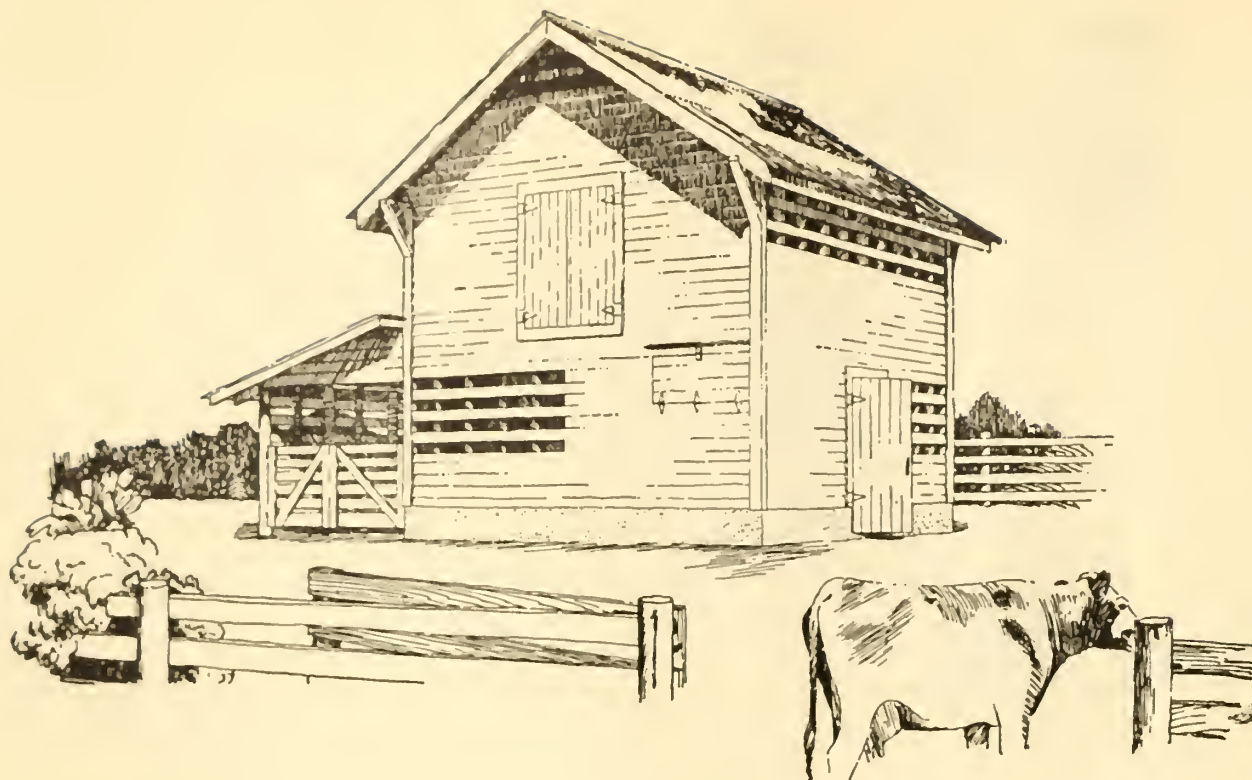




## GENERAL BARN

Four different floor arrangements are suggested on the drawings to meet a variety of conditions that often arise when space is at a premium. If driving through is not required the box stalls can be increased in depth which is very desirable and the drive width

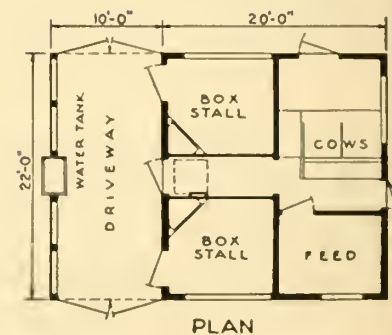
reduced. Departing from custom, the driveway doors are located off center to allow a wide side for box stalls and a narrow side for purposes indicated in the plan shown. Mow capacity, 10 tons of loose hay. Drawing No. 721-5556 (1 sheet)

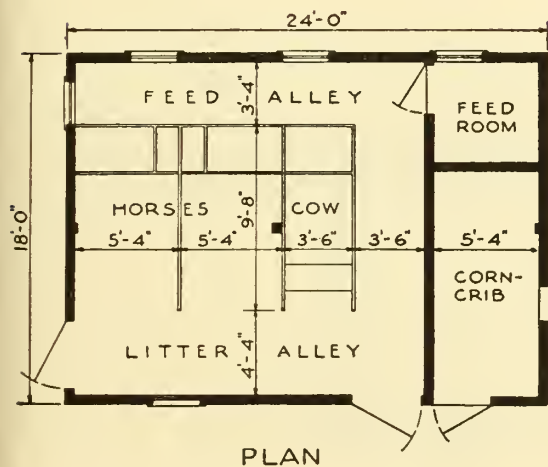
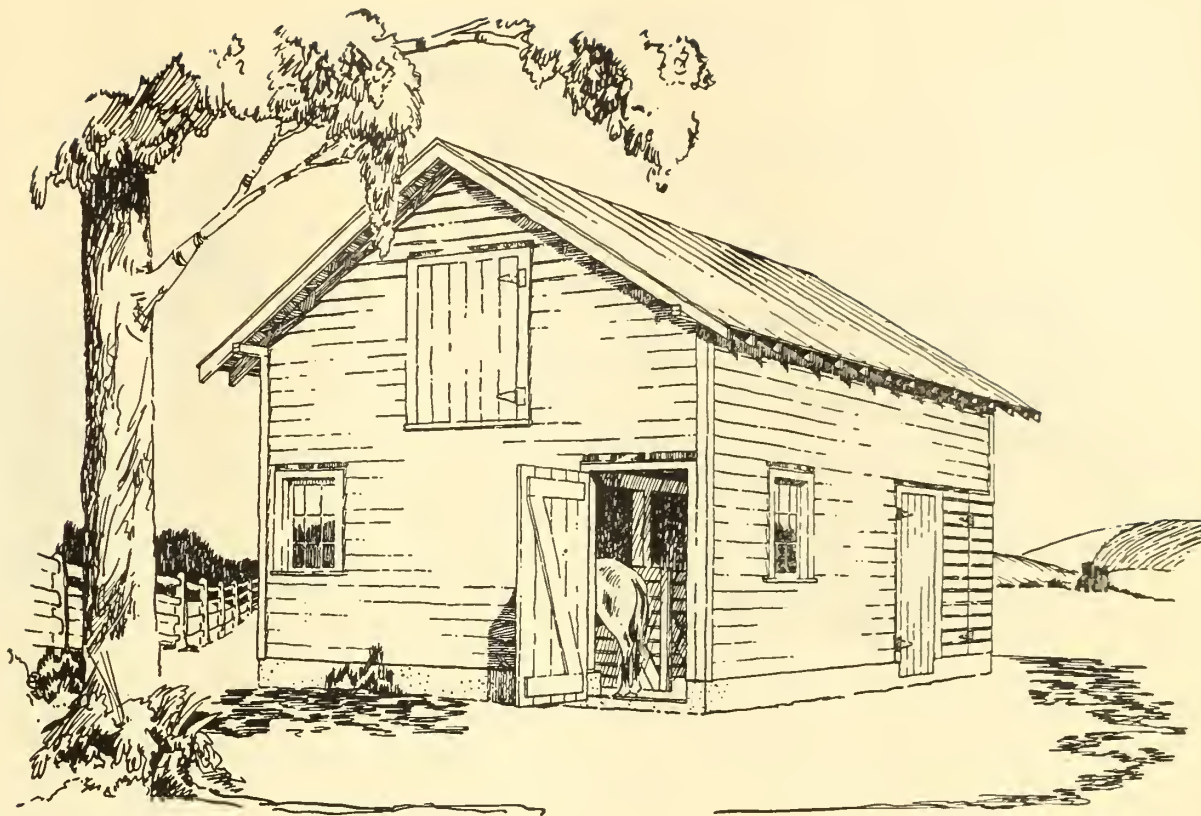
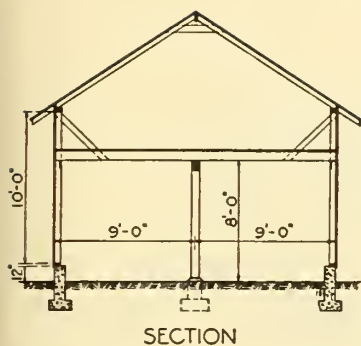


## GENERAL BARN AND LEAN-TO

Floor plans are suggested on the drawings for three different sized barns. The lean-to on one side could be duplicated on the other one or both could be utilized for loose stock, storage, or implements. Slatted openings are shown in place of windows. Mow capacity, 7 to 12 tons of loose hay in the different barns.

Drawing No. 721-5557 (2 sheets)



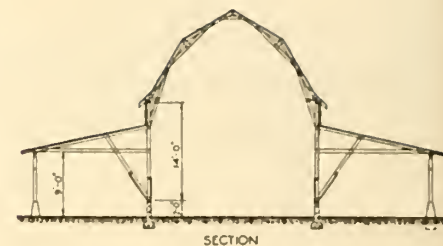
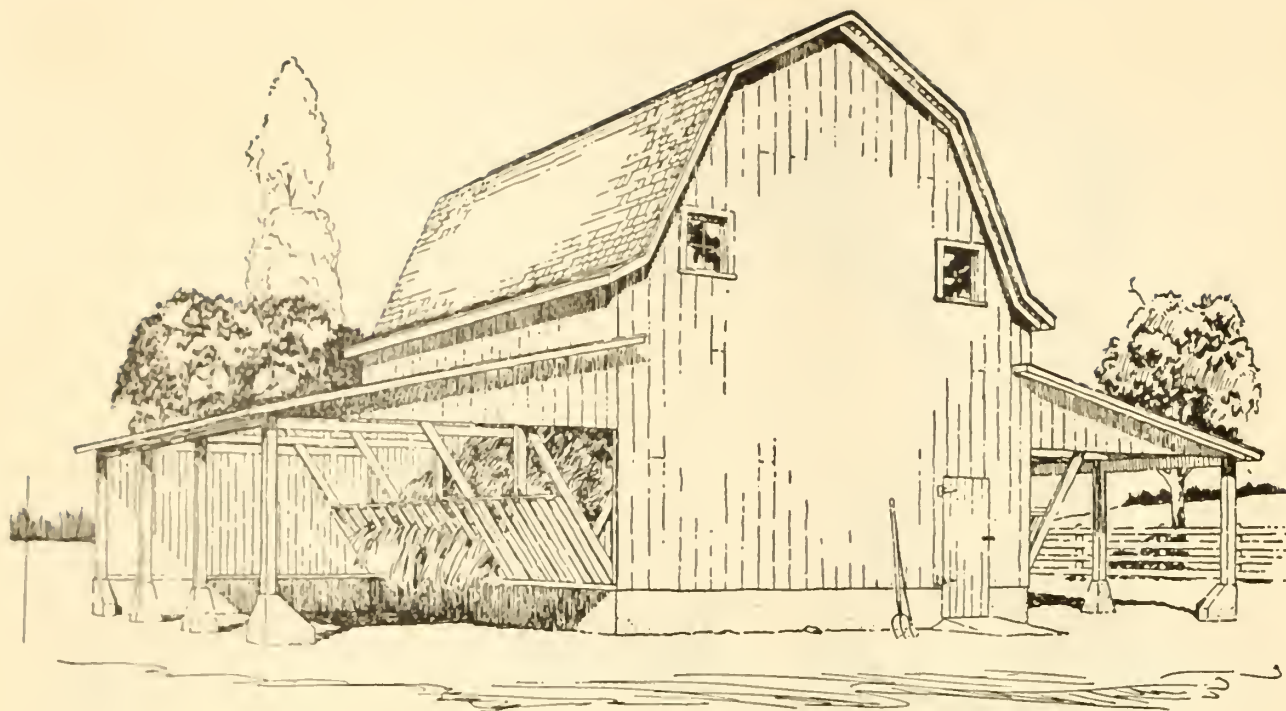


## GENERAL BARN

A conveniently arranged barn for a team and one cow. The slatted crib in one corner will hold 100 bushels of ear corn. A door into the crib from the alley should be provided. Mow capacity, 5 tons of loose hay.

Drawing No. 721-5558 (1 sheet)

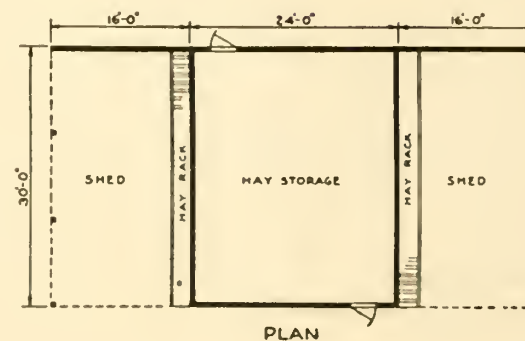


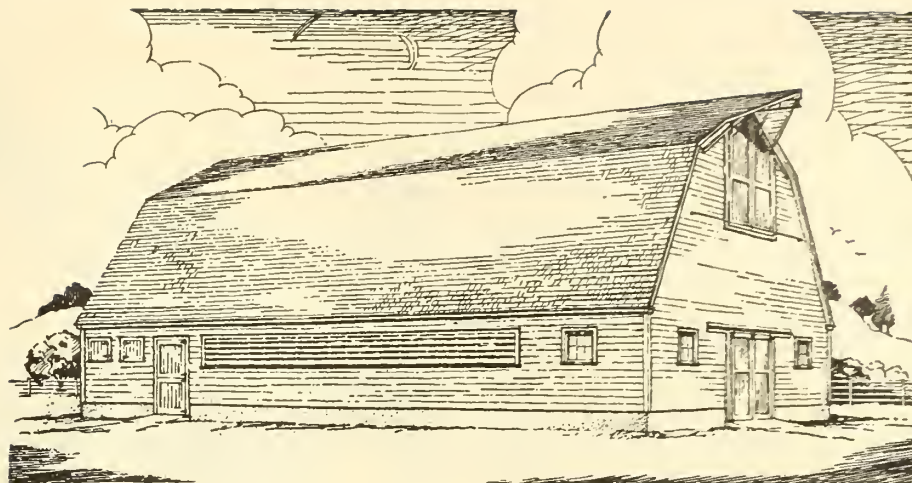
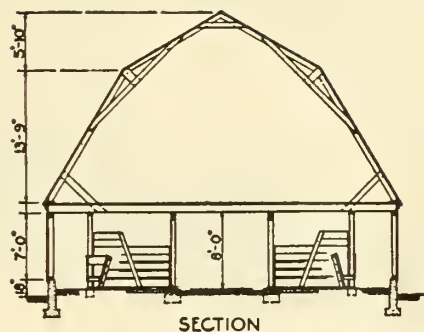


## FEEDING BARN

A practical barn for warm climates. It may be used for beef cattle if a large quantity of hay is needed. Trough space is provided for 20 head under the 2 leans-to. Additional space for 10 head can be provided by continuing the shed around one end. Hay door and track in end of barn not shown. Capacity, 35 tons of loose hay.

Drawing No. 721-5559 (2 sheets)





## HORSE BARN

Different floor arrangements are suggested by the three plans so as to provide for face-in or face-out stalls, and various combinations of pens, box stalls, and tie stalls. Outside doors to box stalls are sometimes desirable. While shown with a  $1\frac{1}{2}$ -story gambrel roof (type C), roof types A and B, page 40, could be used if a large amount of hay is required. Slats are shown in the sidewalls for light and ventilation. Under some conditions in the south battened shutters are

used on the north side. In cold climates glazed windows should be used instead of slats.

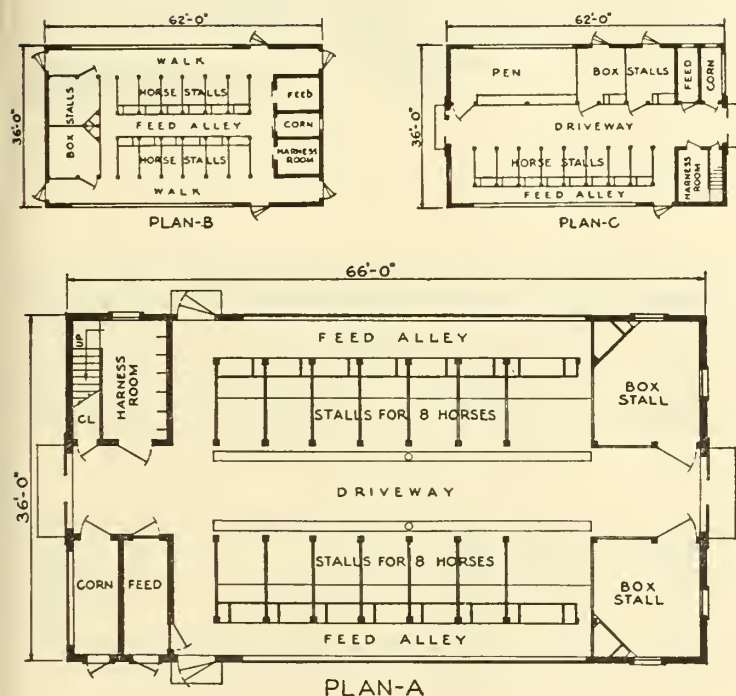
Drawing No. 722-5560 (3 sheets)

**5560**

### Horse Barn

By locating the feed alley through the width of the barn, space is economically used for stalls and bins. Two box stalls with outside doors are convenient for riding horses. Corncrib 100 bushels ear corn, mow capacity 24 tons hay. Braced rafter roof. Size 26 by 34 feet. (Not illustrated.)

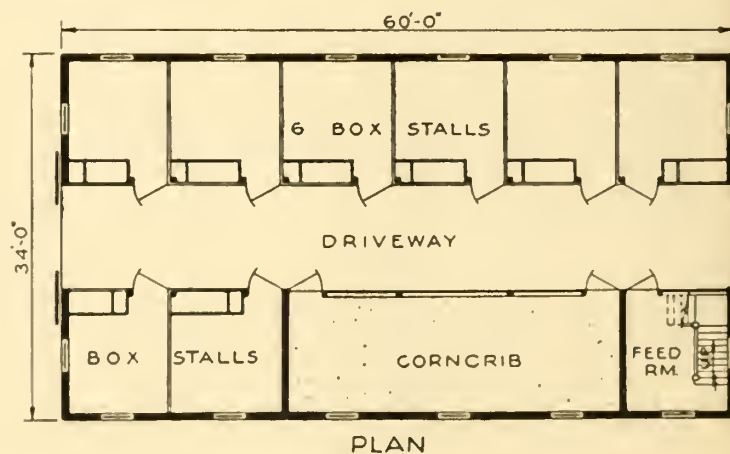
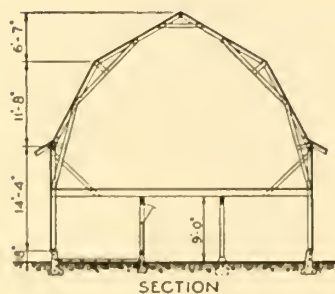
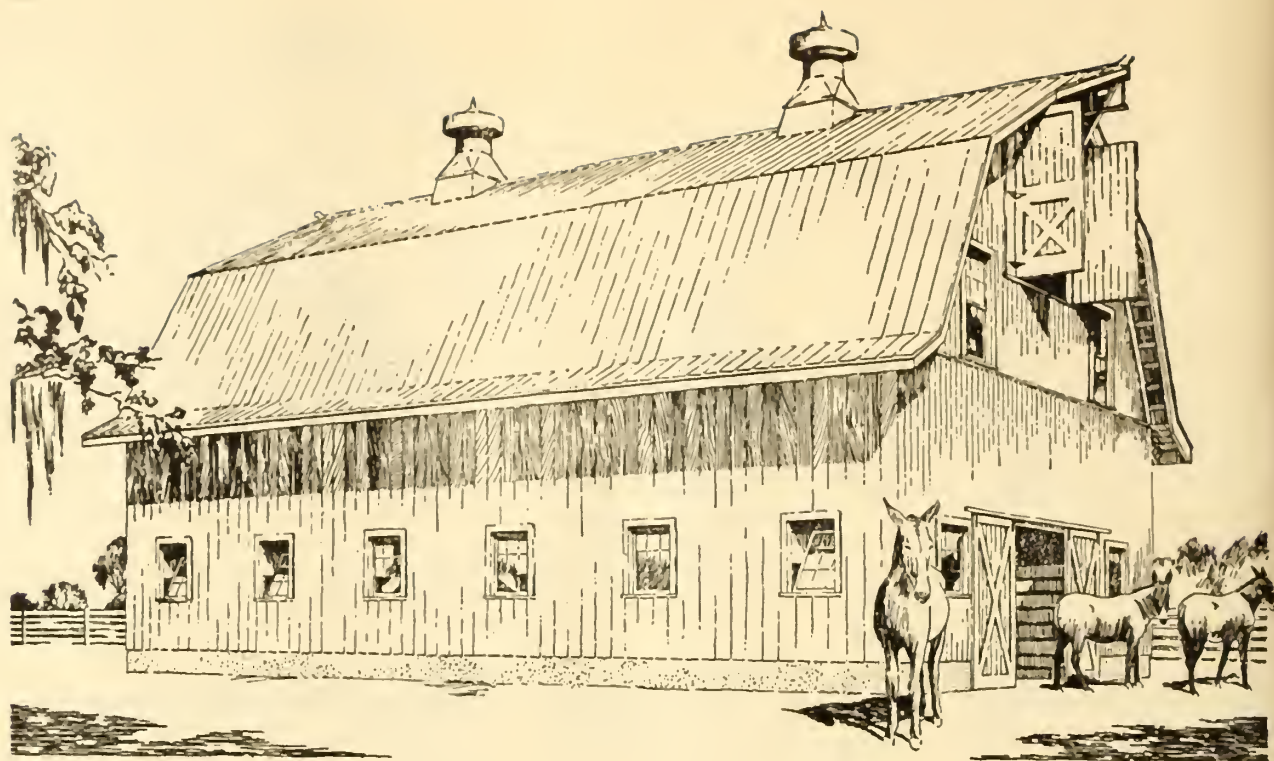
Drawing No. 722-5512 (2 sheets)

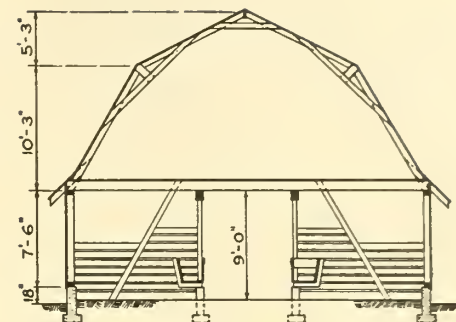
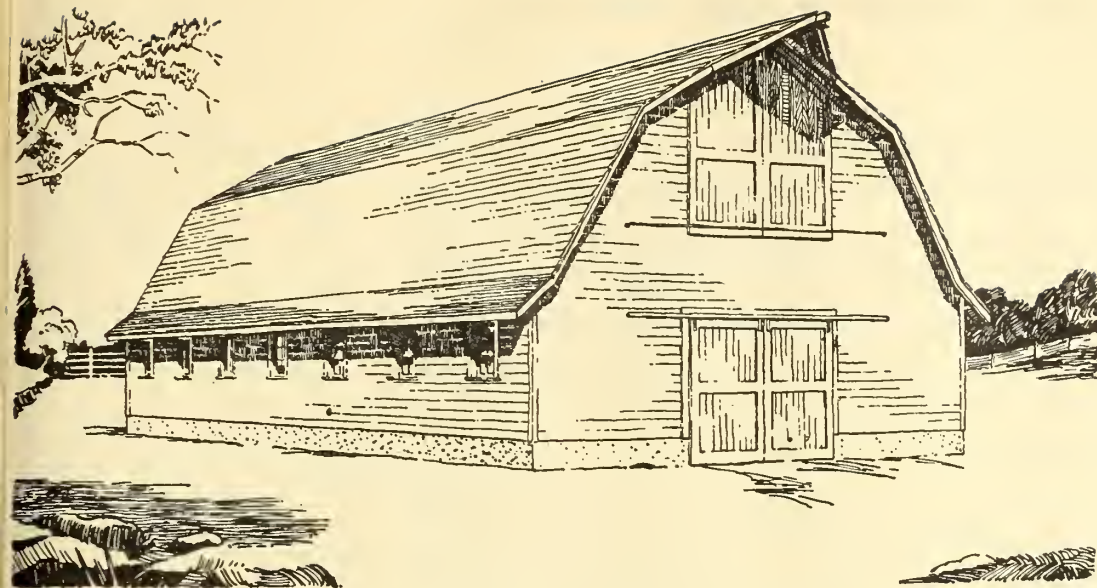




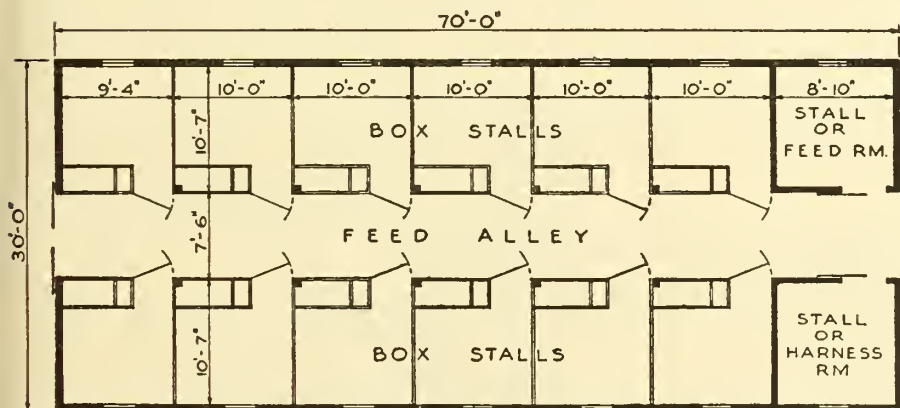
## MULE BARN

Under some conditions one large pen might be used for mules instead of the six box stalls shown. Corner mangers give more stall space and reduce chances for injuring animals. The large crib on the ground floor, holding 750 bushels of ear corn, has a concrete floor; further protection against rats can be provided by installing  $\frac{1}{4}$ -inch mesh-woven wire on the studs before applying the slats or siding. If additional space for animals is needed the crib can be built outside. The rafters may be slatted for V-crimped metal roofing or rigid-type shingles, or solid-boarded for composition roofing, etc. Mow capacity, 52 tons of loose hay. Drawing No. 722 5561 (2 sheets)





SECTION



PLAN

## HORSE BARN

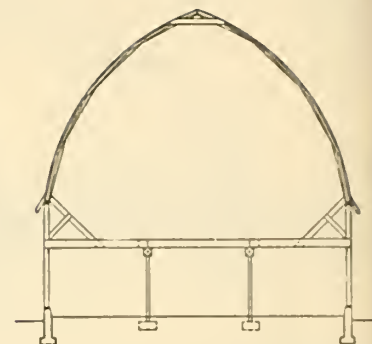
This barn is especially suitable for riding horses. If used as a maternity barn the mangers should be omitted. It would be feasible to substitute tie stalls on one side to accommodate more animals. A feed room and harness room could be provided as shown in place of box stalls at one end. Mow capacity, 35 tons of loose hay.

Drawing No. 722-5563 (1 sheet)

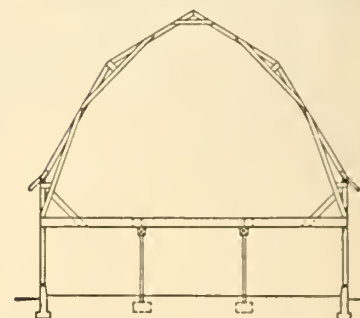
## BARN FRAMING AND DETAILS



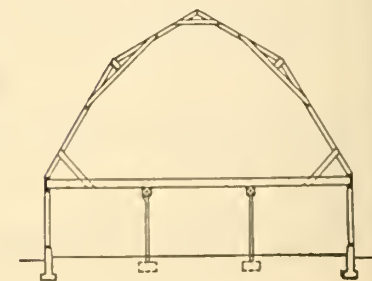
**Type A, gothic roof.**—The gothic-roof barn has graceful curves and the practical advantage of large mow space without posts. The plans provide for rafters sawed from lumber 1 inch thick. Sometimes the rafters are made up of 1- by 4-inch ribs bent to form a curve; but home-made ribs of this type usually sag. Loose hay capacity is about  $1\frac{1}{4}$  tons per foot of length.



**Type B, gambrel roof, two stories.**—The gambrel roof sometimes is erroneously called a hip roof. By extending the wall studs above the mow floor and setting the braced rafters on a plate, as shown in the section, a mow of large capacity may be built without the use of posts. The braced rafters of 2-inch plank form a stiff frame. Hay capacity about 1 ton per foot of length.



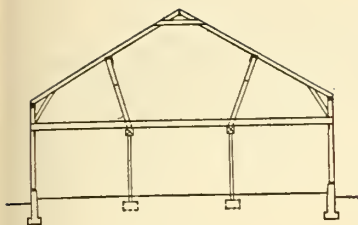
**Type C, gambrel roof, one and one half stories.**—This is the same type of framing as shown for type B, except the braced rafters are set on a plate at the mow-floor level; hay capacity about 0.6 ton per foot of length.





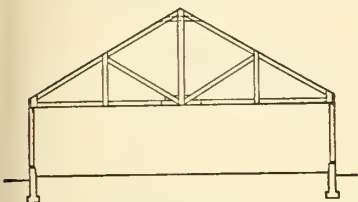
**Type D, gable roof, one and one-half**

**stories.**—The gable roof of barns over 26 feet wide must be supported by trusses, or posts and purlins. Trusses are seldom used for two-story barns. Where the mows are high the necessary bracing for post-and-girder construction interferes with mowing hay, but for low mows the necessary bracing is not a serious inconvenience. Hay capacity about one-third ton per foot of length.



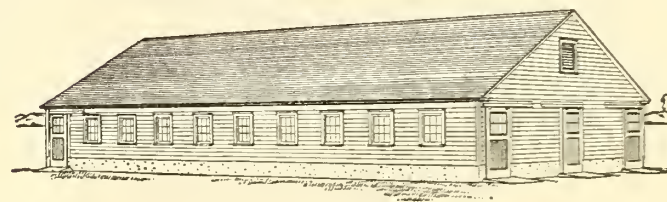
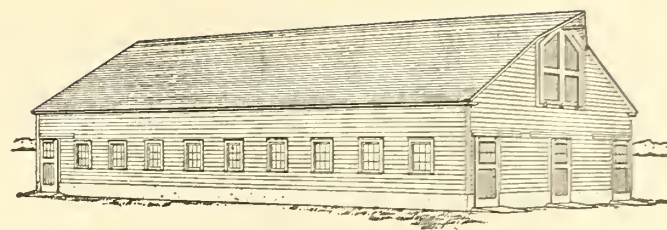
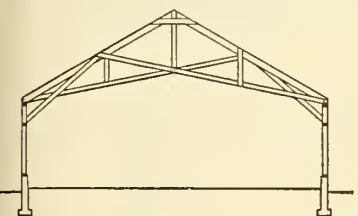
**Type E, gable roof, one story.**—This lightly

framed truss provides a level ceiling. The trusses may be built on the ground and hoisted in place. Posts are not needed inside the barn.



**Type F, gable roof, one story.**—This scissors

truss provides sloping ceilings and a somewhat greater stable height. Posts are not needed inside the barn.



The illustrations on pages 40 and 41 show six methods of framing barns. They are intended to be used in connection with floor plans of any barn 34 or 36 feet wide. As an example—

There are three sheets to each set of the following drawings: 5111, 5112, 5113, 5115, 5116, and 5117. The floor plans are shown on pages 43 and 44.

Sheet 1 will be one of these floor plans.

Sheet 2 depends upon the type of roof wanted,

A, indicating a gothic roof requires drawing 5524,

B, indicating a two-story braced rafter roof requires drawing 5525,

C, indicating a one-and-one-half-story braced rafter roof requires drawing 5526,

D, indicating a one-and-one-half-story gable roof requires drawing 5119,

E, indicating a one-story gable roof requires drawing 5120,

F, indicating a one-story scissors truss requires drawing 5527.

Sheet 3 gives details of cow stalls, drawing 5105. (Not illustrated.) The following standard detail sheets show various methods of building different kinds of doors and windows and other structural features so that a choice can be had between overhanging and clipped eaves, sliding and swinging doors, etc. These are not included with an order for the above drawings but may be purchased upon special request:

5103 Hay-door details.

5107 Horse-, cow-, and calf-pen details.

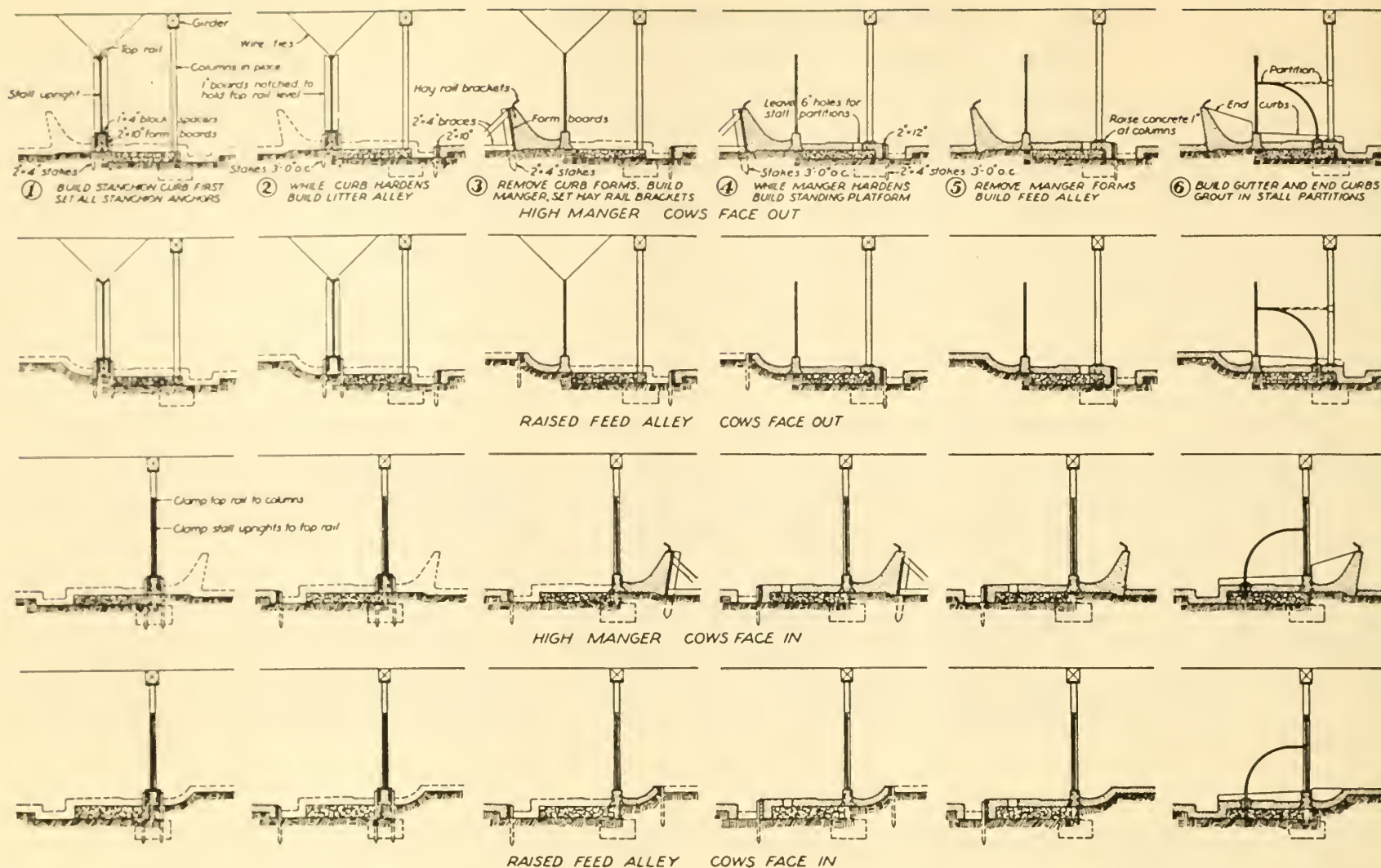
5106 Steps in concreting dairy-barn floors. See page 42.

5170 Barn-window details.

5171 Barn-door details.

5175 Horse-stall details.

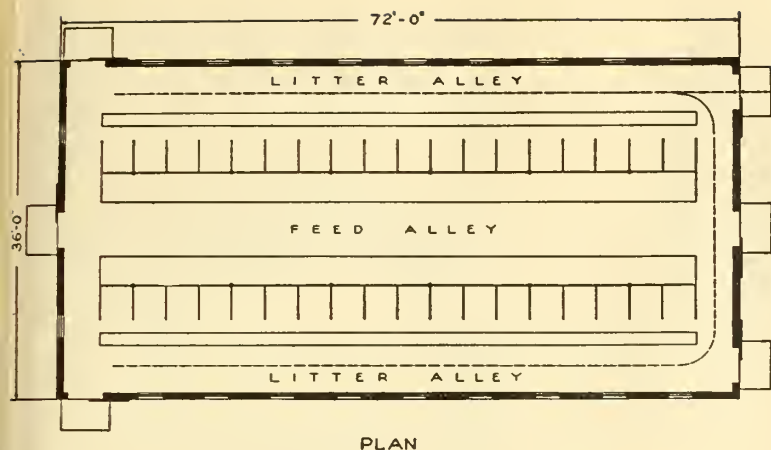
5199 Barn-eaves details.



## STEPS IN CONCRETING DAIRY-BARN FLOORS

Considerable difficulty will be avoided if the various parts of a dairy-barn floor are built in the order suggested by this plan.

Drawing No. 723-5106 (1 sheet)



PLAN

Similar plans for a 34-foot barn, 32 face-in stalls, can be had. (Not illustrated.)

Drawing No. 723-5115A, B, C, D, E, or F

**\*5115**

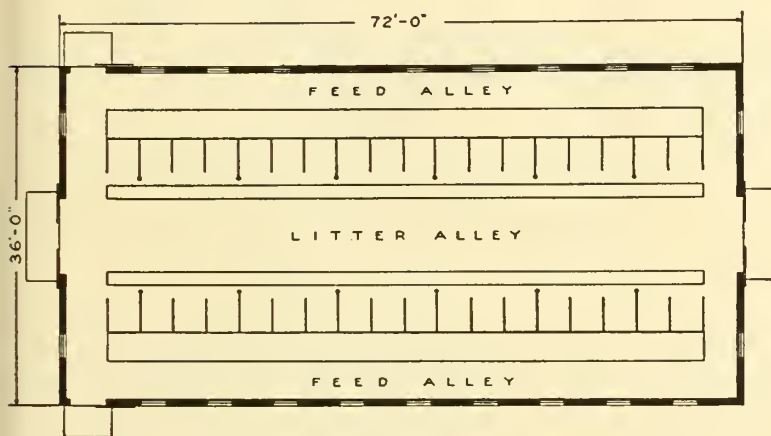
## DAIRY BARN

This 36-foot barn has 36 face-in stalls. Drawings are available, as indicated below, to provide

Gothic roof (2 stories) . . . . . Drawing No. 723-5111A (3 sheets)  
 Gambrel roof (2 stories) . . . . . Drawing No. 723-5111B (3 sheets)  
 Gambrel roof (1½ stories) . . . . . Drawing No. 723-5111C (3 sheets)  
 Gable roof (1½ stories) . . . . . Drawing No. 723-5111D (3 sheets)  
 Gable roof (1 story), flat ceiling . . Drawing No. 723-5111E (3 sheets)  
 Gable roof (1 story), sloped ceiling . Drawing No. 723-5111F (3 sheets)

**5111**

for framing the barn in any one of the six ways illustrated on pages 40 and 41. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.



PLAN

Similar plans for a 34-foot barn, 32 face-out stalls, can be had. (Not illustrated.)

Drawing No. 723-5116A, B, C, D, E, or F.

**\*5116**

## DAIRY BARN

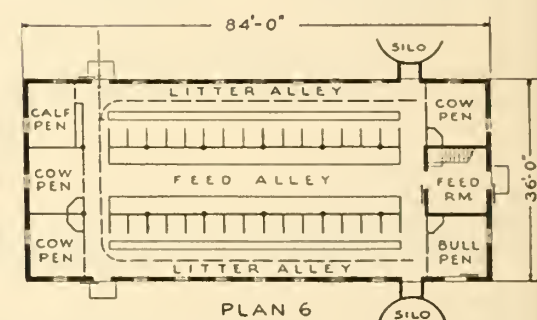
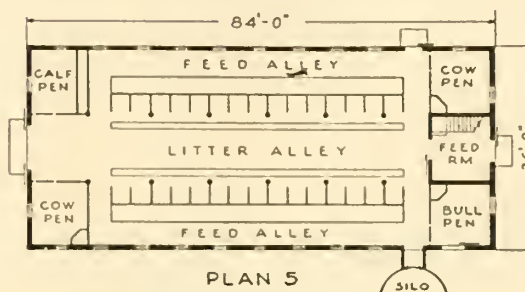
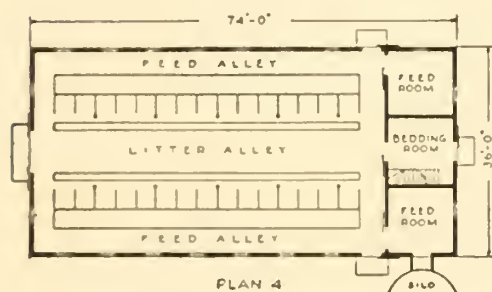
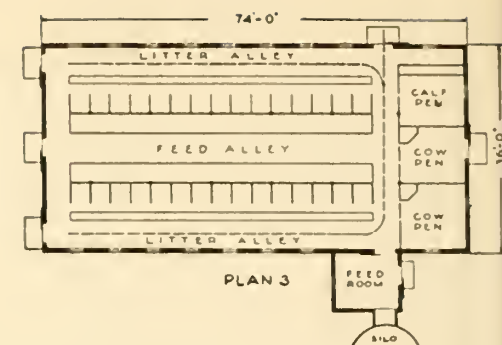
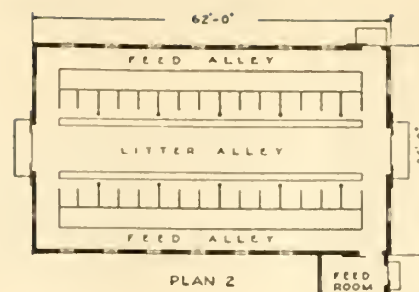
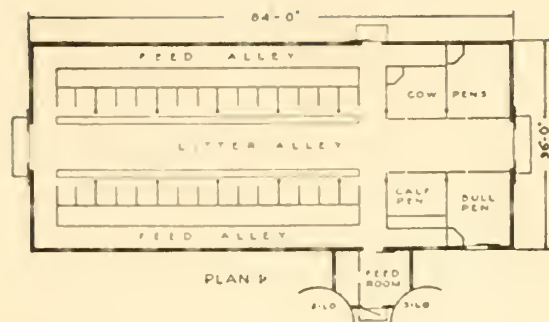
In this 36-foot barn the 36 stalls face out. Drawings are available, as indicated below, to provide

Gothic roof (2 stories) . . . . . Drawing No. 723-5112A (3 sheets)  
 Gambrel roof (2 stories) . . . . . Drawing No. 723-5112B (3 sheets)  
 Gambrel roof (1½ stories) . . . . . Drawing No. 723-5112C (3 sheets)  
 Gable roof (1½ stories) . . . . . Drawing No. 723-5112D (3 sheets)  
 Gable roof (1 story), flat ceiling . . Drawing No. 723-5112E (3 sheets)  
 Gable roof (1 story), sloped ceiling . Drawing No. 723-5112F (3 sheets)

vide for framing the barn in any one of the six ways illustrated on pages 40 and 41. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

**5112**





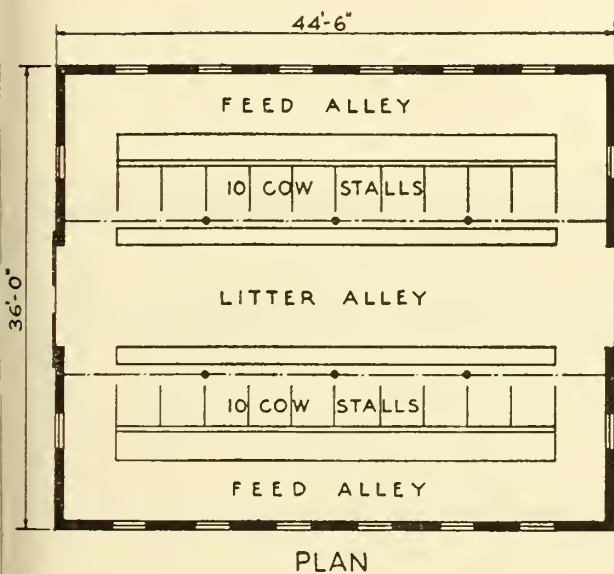
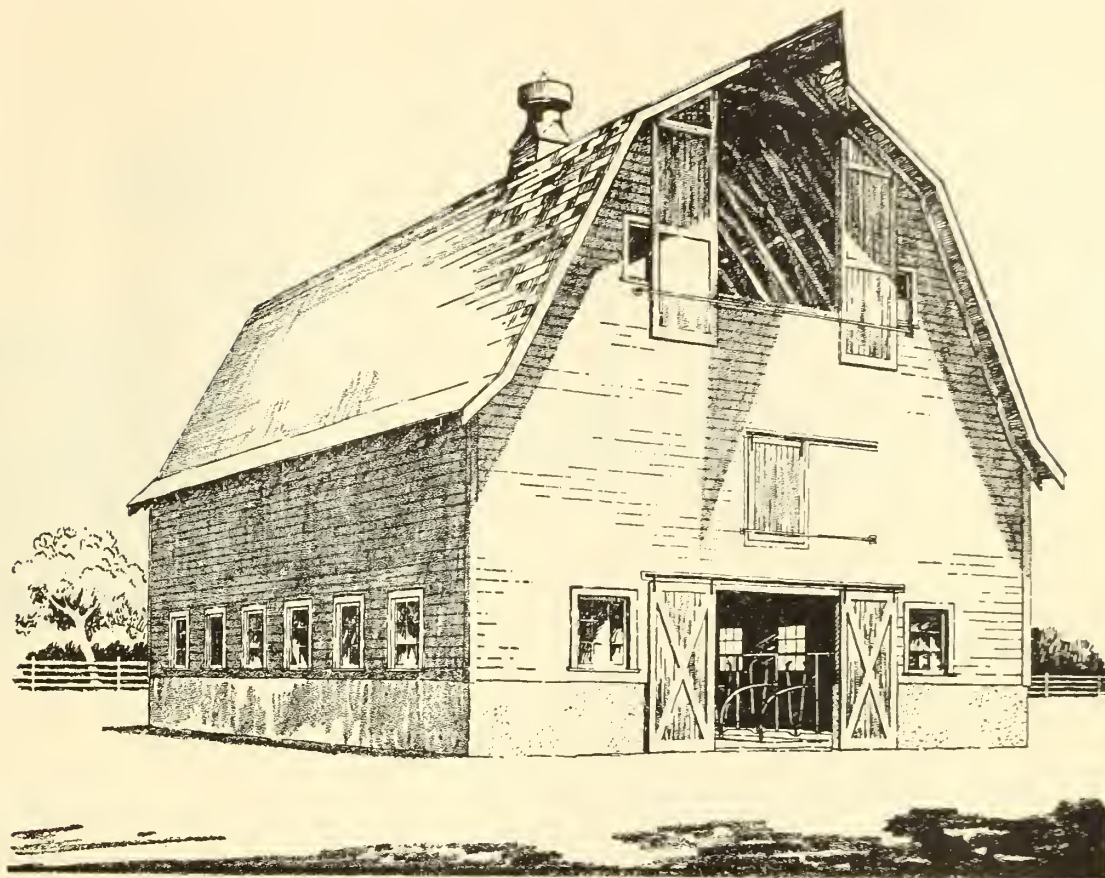
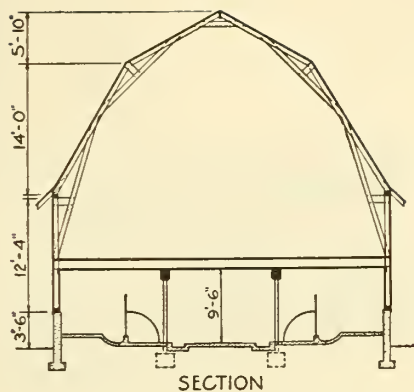
Similar plans for 34-foot barns can be had. (Not illustrated.) Drawing No. 5117A, B, D, C, E, and F

**\*5117**

## DAIRY BARNS

Six different lay-outs are shown on the plans for this 36-foot barn. Drawings are available, as indicated to the right to provide for framing the barn in any of the six ways illustrated on pages 40 and 41. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

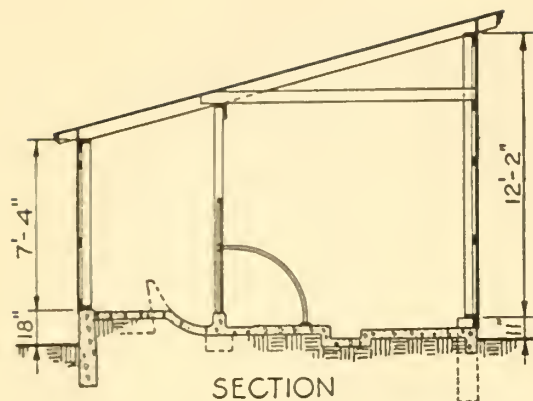
Gothic roof (2 stories) . . . . .	Drawing No. 723-5113A (3 sheets)
Gambrel roof (2 stories) . . . . .	Drawing No. 723-5113B (3 sheets)
Gambrel roof (1½ stories) . . . . .	Drawing No. 723-5113C (3 sheets)
Gable roof (1½ stories) . . . . .	Drawing No. 723-5113D (3 sheets)
Gable roof (1 story), flat ceiling . . . . .	Drawing No. 723-5113E (3 sheets)
Gable roof (1 story), sloped ceiling . . . . .	Drawing No. 723-5113F (3 sheets)



## DAIRY BARN

A typical two-story, gambrel-roof barn with a mow capacity of 50 tons of hay. The barn can be lengthened to accommodate a larger herd. Before selecting plans milk-control officials should be consulted.

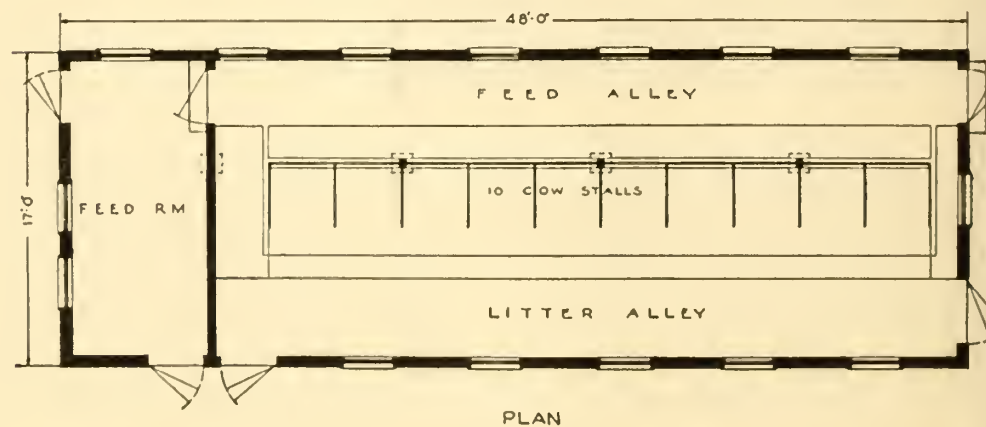
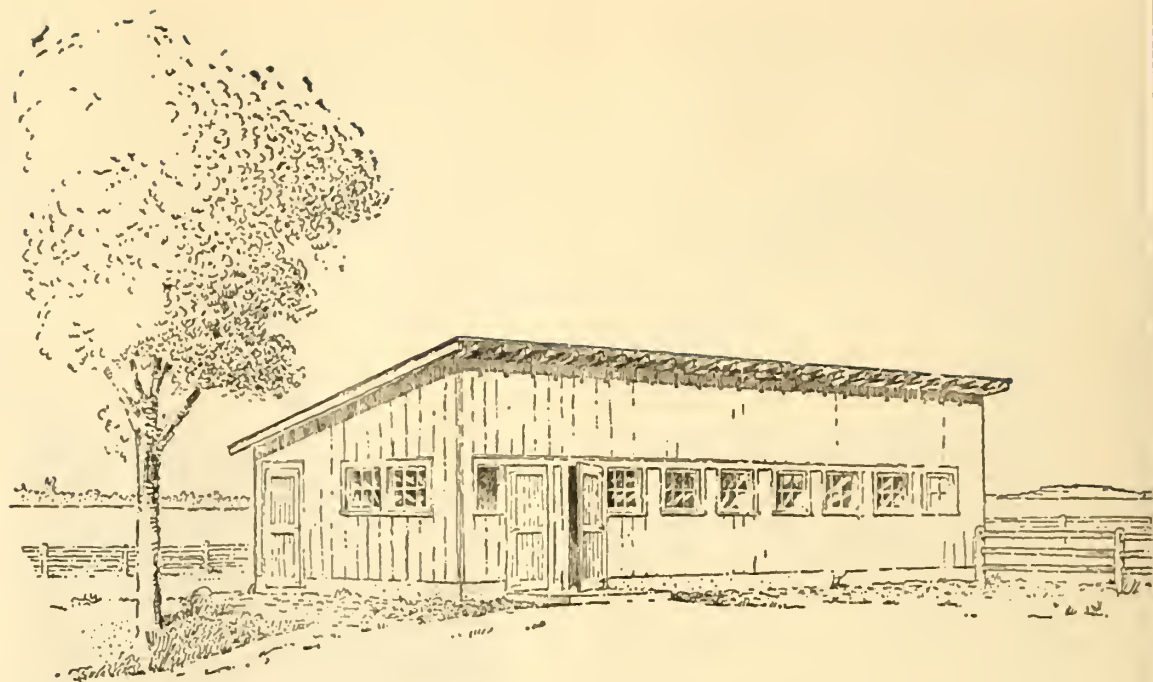
Drawing No. 723-5128 (2 sheets)



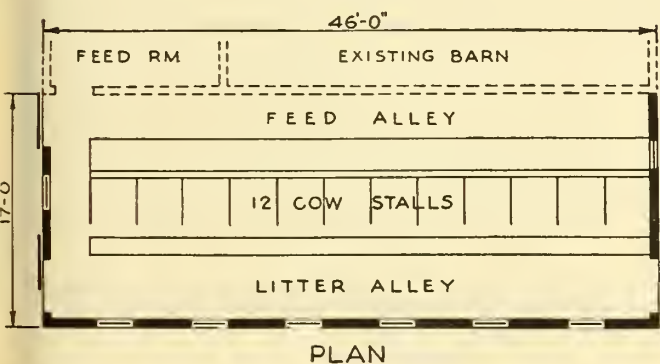
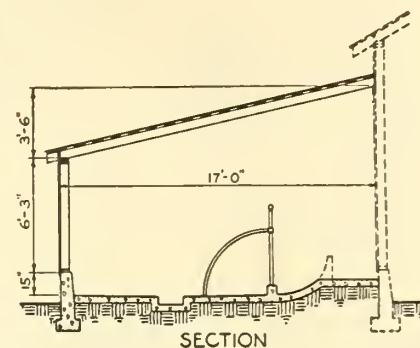
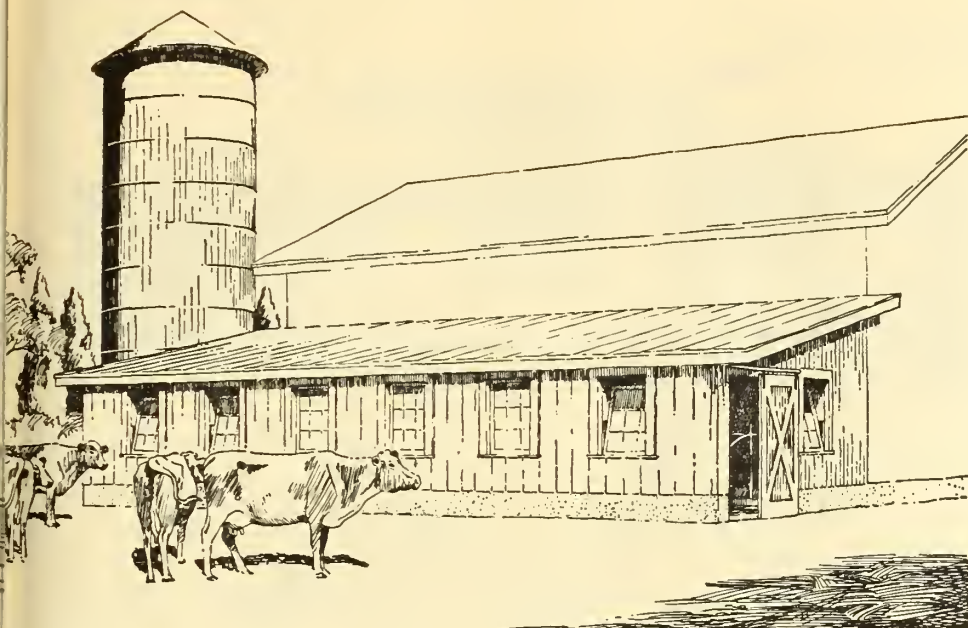
## DAIRY BARN

This one-row, shed-roof barn has been designed for possible conversion into a gable-roof, two-row barn. (The high side is to have posts on piers and, when widening, this wall can be removed without damage to the first unit.) Any approved type of manger may be used, and the length of the platform varied to suit different-sized cows. The side walls are framed with posts and girts which can be covered economically with vertical boards or corrugated metal. The feed room could be made large enough for baled hay. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 723-5459 (1 sheet)





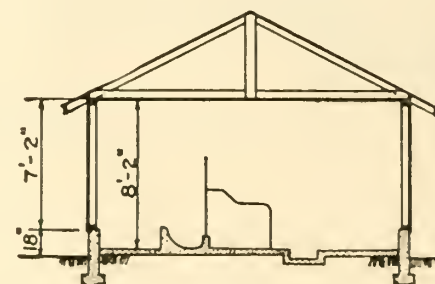
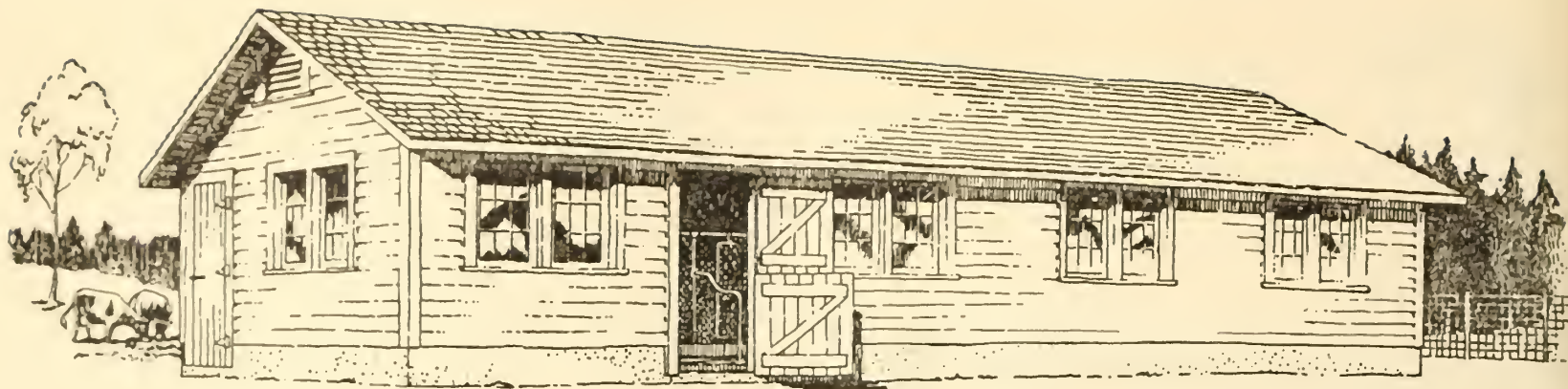


## LEAN-TO SHED

Where more stall space is needed than the existing barn provides, a shed of this type would be of value until more permanent quarters can be justified. The drawings show how to build a lean-to against the barn to accommodate a row of stanchions. Standard dimensions should be used for the stall platforms to suit different breeds; any variation in the length

of the platform will change the width of the litter alley unless the width of the shed is correspondingly adjusted. It is assumed that feed and hay storage will be available in a nearby building. Before selecting plans, milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 723-5564 (1 sheet)

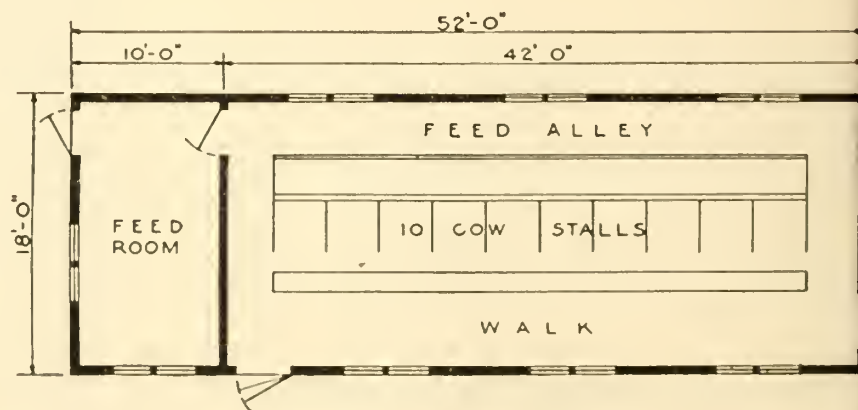


SECTION

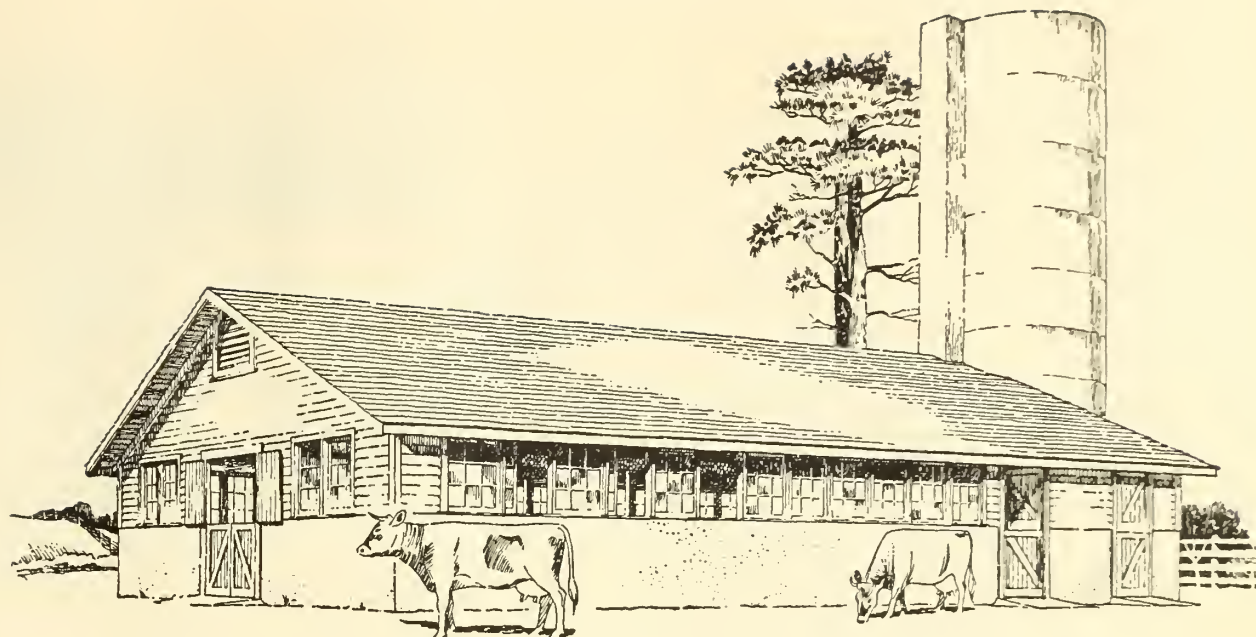
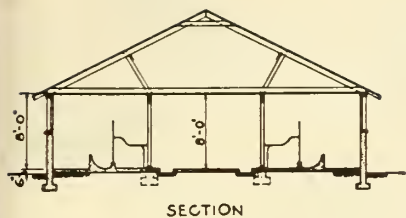
## DAIRY BARN

This structure is similar in arrangement to drawing No. 5459, page 46, but is much better built. It is not intended to be converted into a two-row barn, but is practical for a small dairy farm which is not expansible. The length of the stalls should be suited to the cows. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 723-5565 (2 sheets)



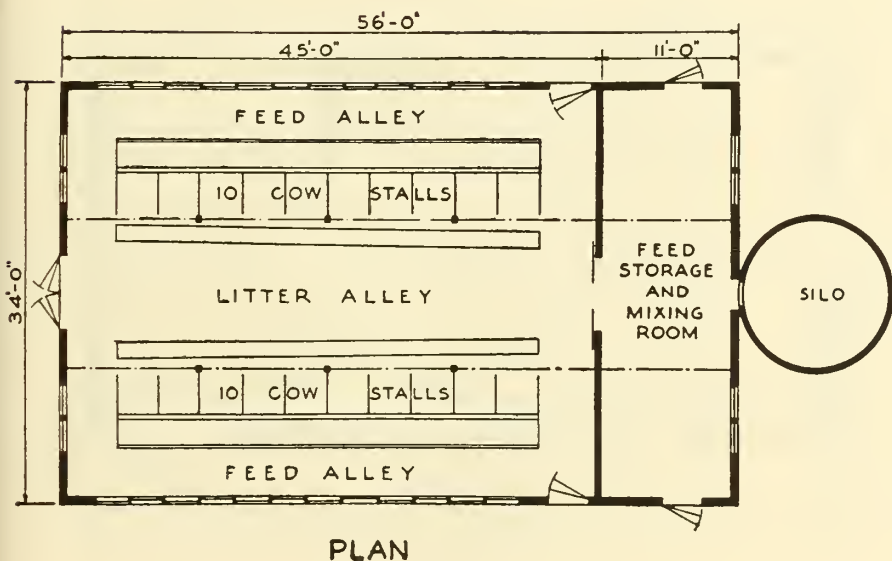
PLAN



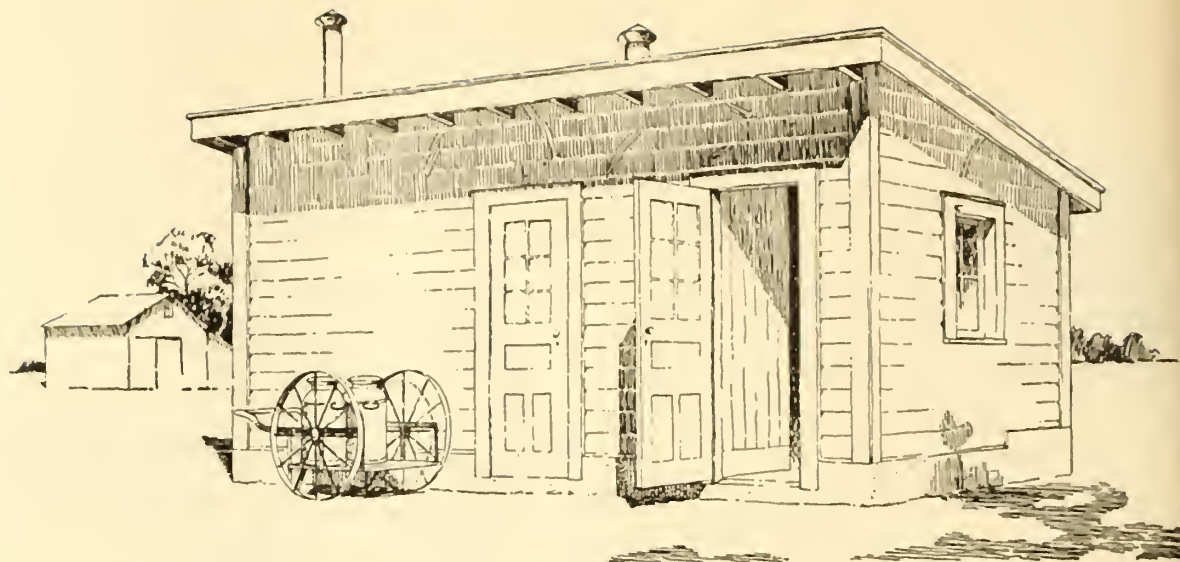
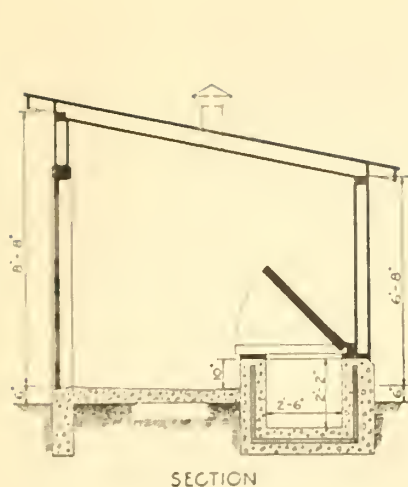
## DAIRY BARN

This structure, like design 5565, is stiffly built but differs in providing two rows of stanchions and continuous windows in the side walls. The high ceiling is conducive to coolness and ample ventilation. The silo is readily accessible from the feed room. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 723-5566 (2 sheets)



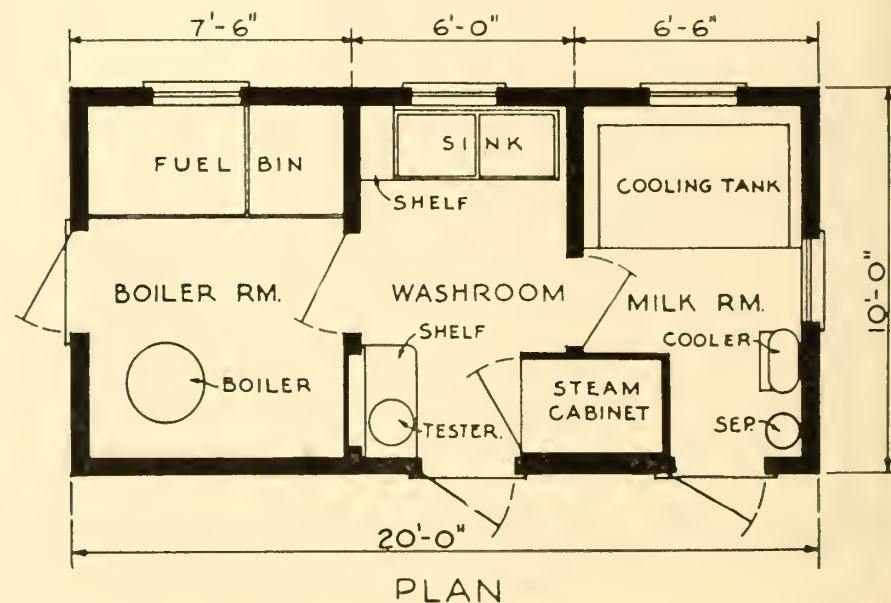


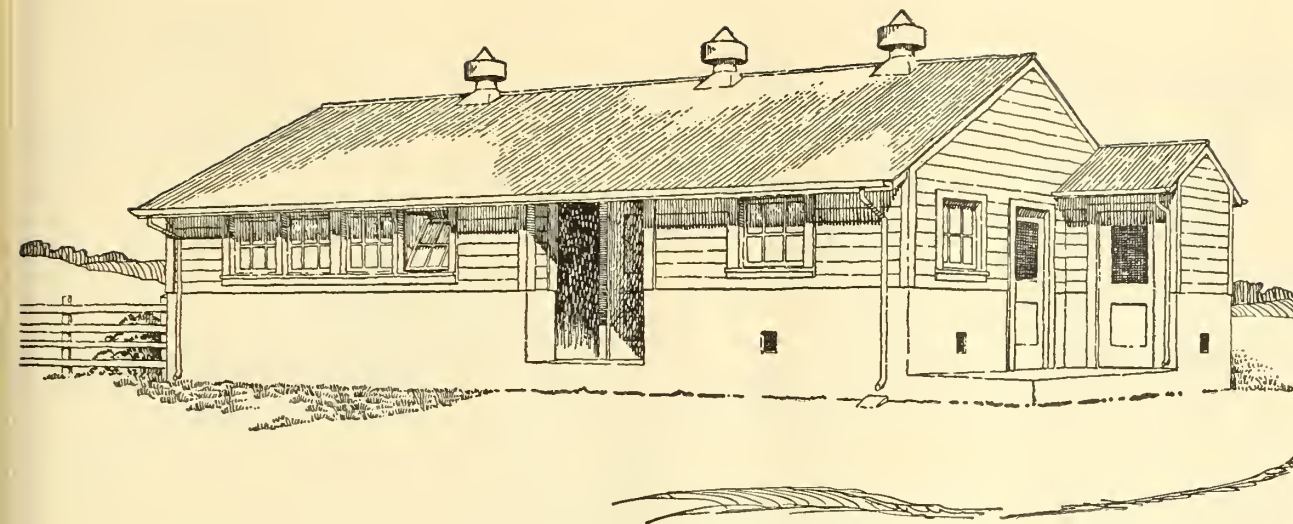


### THREE-ROOM MILK HOUSE

A good house for 20- to 30-cow dairies shipping milk or cream in cans. It is small, conveniently arranged, and relatively inexpensive. The small closet between the milk room and washroom is to hold sample bottles and glassware for the Babcock test. The cooling tank is sunk below the floor level for convenience in lifting cans. A window could be substituted for the door, between the washroom and boiler room. A dressing room could be partitioned off the boiler room. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 752-5023 (1 sheet)



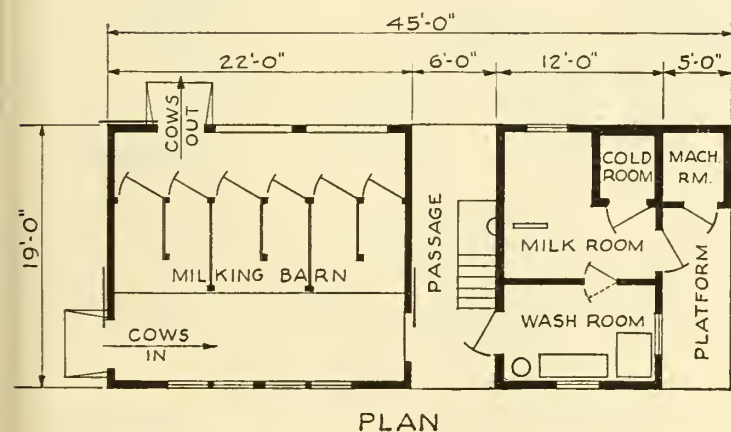


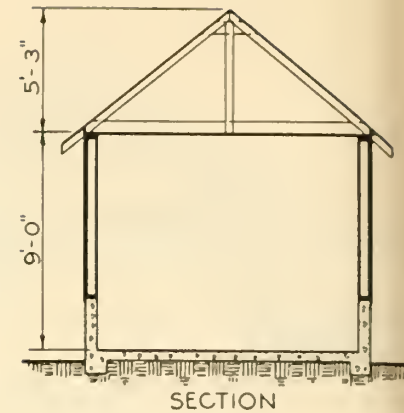
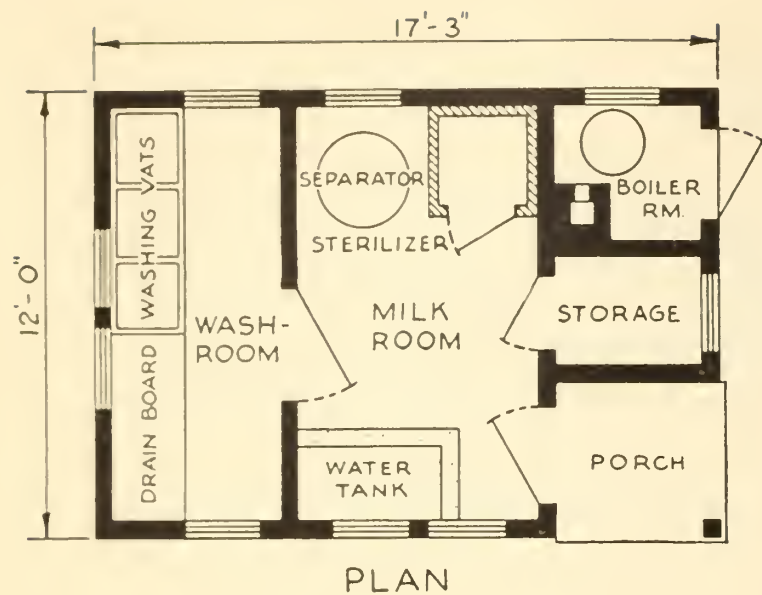
## MILKING BARN AND MILK HOUSE

The milking-barn space shown contains six parallel walk-through stalls, arranged in pairs 7 feet wide. With a milking machine one man can handle four stalls efficiently. The herd is brought up a paved lane from the shelter barn and six cows are admitted to the stalls at a time. After milking, the gates at the heads of the stalls are opened and the cows pass through to return to the shelter barn down a second lane. Six stalls are

enough for milking 30 to 60 cows. If feeding during milking is preferred, a metal feed tub may be hung on the stall door. A cow can usually be milked in 6 minutes, but needs at least 12 minutes in which to eat. The milk room is across an open passageway. Before selecting plans milk-control officials should be consulted regarding sanitary regulations.

Drawing No. 752-5457 (5 sheets)





## MILK HOUSE

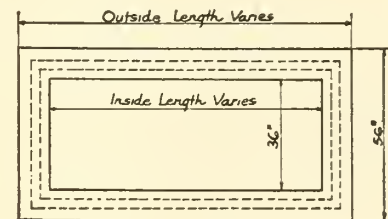
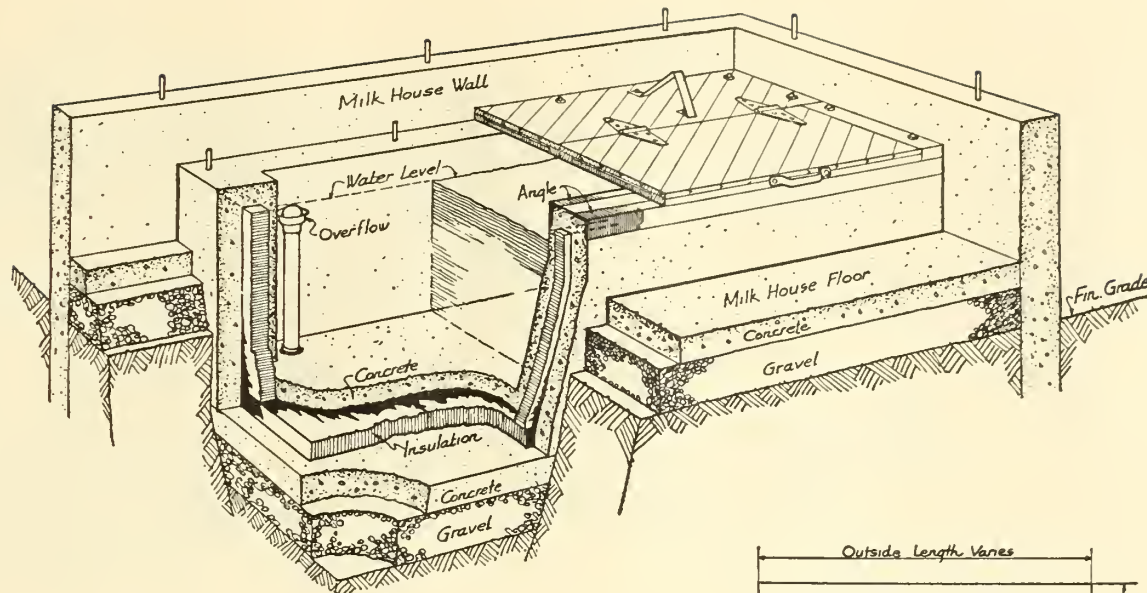
A small milk house with cooling tank capacity for three 10-gallon cans and providing conveniences for ordinary operations. The cans must be carried in instead of carted. Attention has been given to the outside appearance of this building.

Drawing No. 752-5598 (2 sheets)



5598





KEY PLAN

## CAN-COOLING TANK

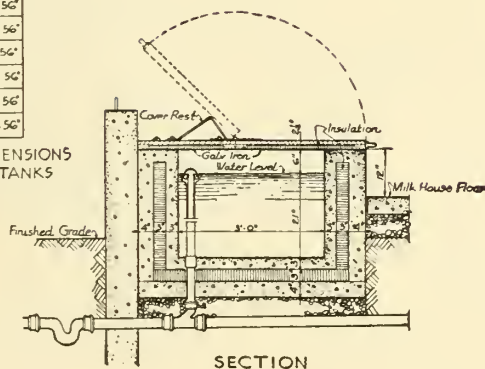
Most market-milk regulations require quick cooling of milk and holding it at a low temperature. This insulated concrete tank is a type frequently built but requires thorough waterproofing of the insulation. Where this is not practical a metal lining may be advisable. The tank can be

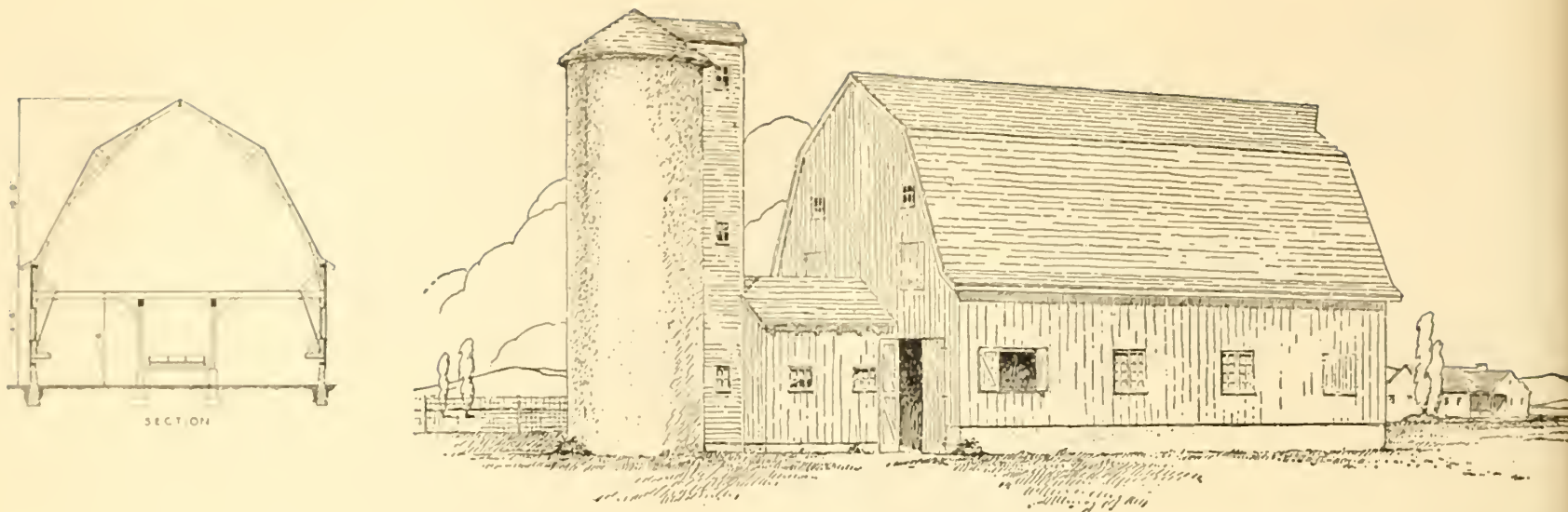
built in any milk house and of different sizes to hold from two to twelve 5- or 10-gallon cans. Water, ice, or mechanical equipment may be utilized for cooling. Local and State milk ordinances should be consulted before building cooling tanks.

Drawing No. 7521-5180 (2 sheets)

NUMBER OF 40 QT. CANS	TANK DIMENSIONS	
	INSIDE	OUTSIDE
2	24" x 36"	44" x 56"
4	36" x 36"	56" x 56"
6	54" x 36"	74" x 56"
8	72" x 36"	92" x 56"
10	90" x 36"	110" x 56"
12	108" x 36"	128" x 56"

TABLE SHOWING DIMENSIONS  
OF VARIOUS SIZE TANKS





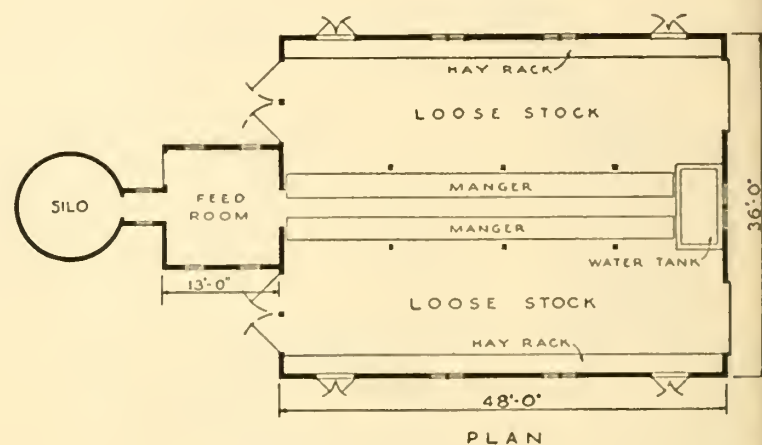
## BEEF CATTLE BARN

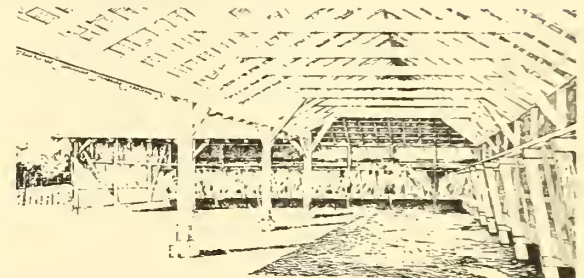
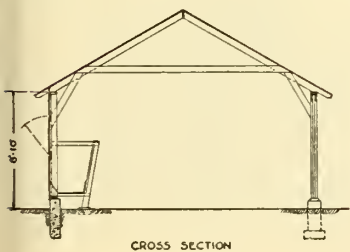
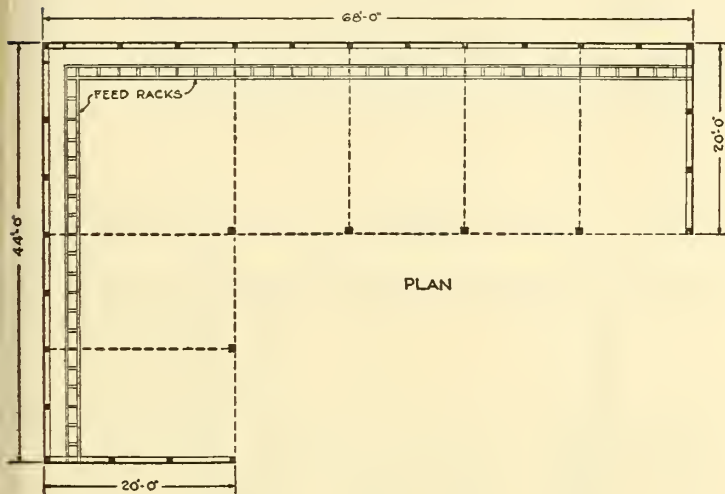
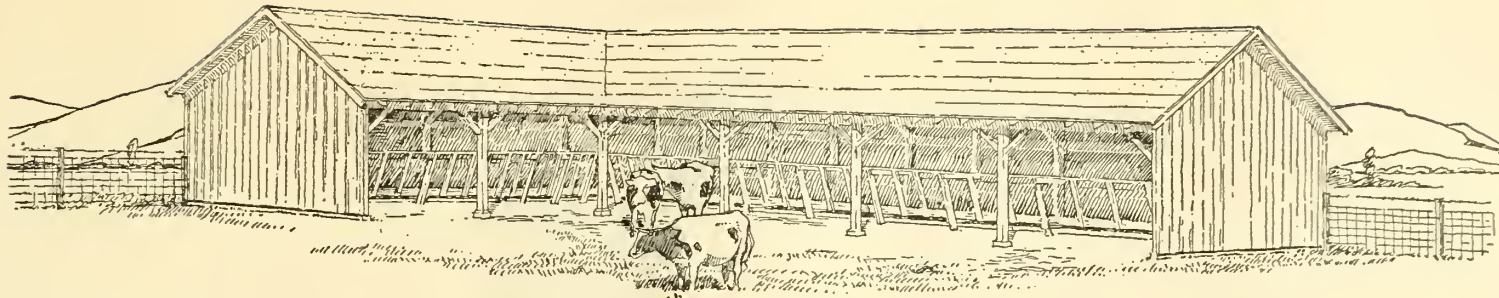
While housing is not essential for fattening steers, it pays to protect them against storms. Breeding stock should be sheltered, and young stock will make cheaper gains when protected from the elements.

Since a beef cattle barn is used only part of the year, for cattle it should be arranged so that it can be adapted for other purposes. With large doors, it can be utilized for sheltering implements but it should be cleaned of manure to avoid corrosion of binders, etc. Sacked feed, etc., could be stored temporarily on a removable board floor.

Capacity, 34 steers and 50 tons of loose hay.

Drawing No. 724-5262 (3 sheets)





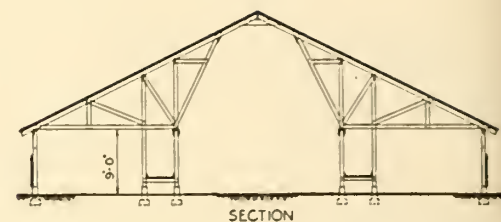
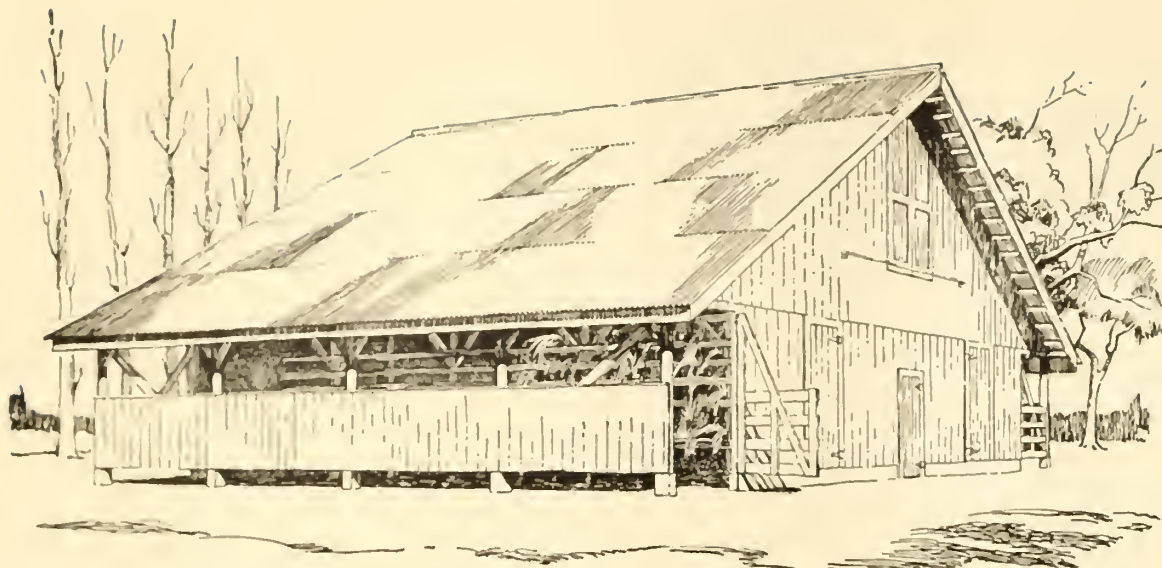
## CATTLE SHED

For cattle in the feed lot this shelter may prove desirable. It might also be used for sheltering dry cows or young stock on a dairy farm. The plans show an L-shaped shed, but it could be built in a straight line. Doors in the rear wall permit filling the mangers from a truck.

The mangers could be omitted if the structure is used only for a shelter or they could be moved 4 feet from the rear wall to provide an alley for carting feed from the barn.

Drawing No. 724-5460 (1 sheet)

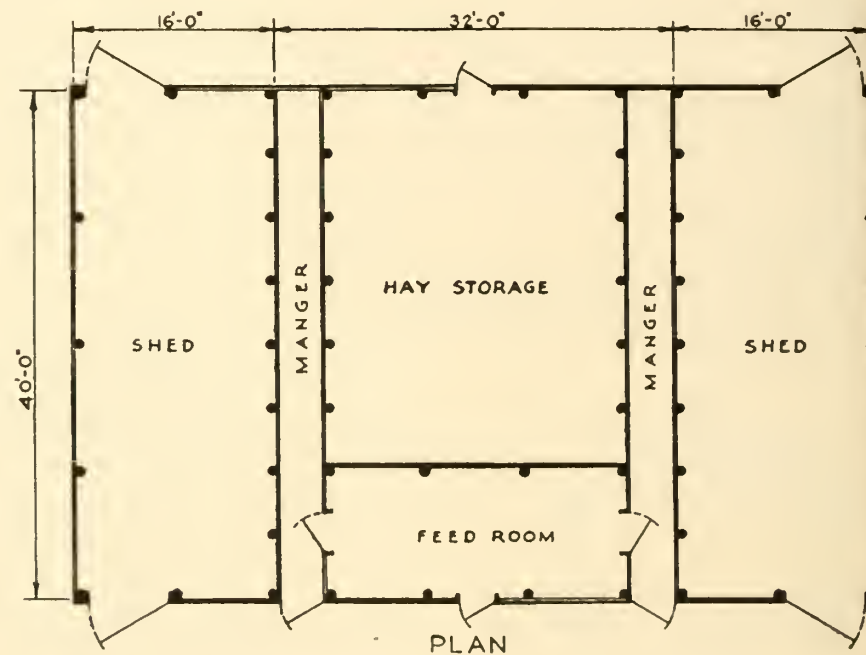




## CATTLE SHED

An economically framed building holding 32 tons of loose hay in the central part. Pens for 30 loose cattle are formed at the sides by fencing between the outside posts—no siding being used. A combination feed alley and manger between the storage space and pens reduces the labor of handling hay.

Drawing No. 724-5567 (1 sheet)



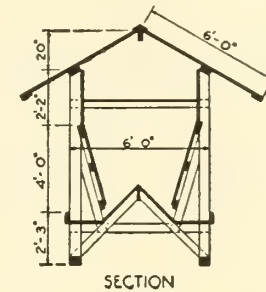
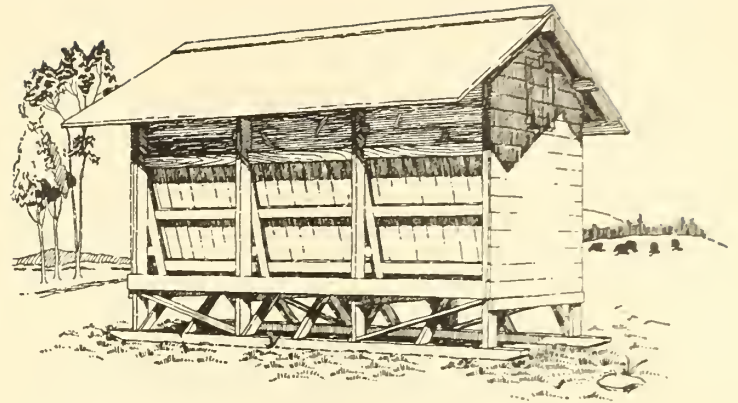
## SELF-FEEDER →

Most cattle are hand-fed, but the use of self-feeders for fattening cattle is increasing. Such equipment should be used with care during the early part of the feeding period, as it is better to increase the fattening feeds gradually. This is more advantageously done by feeding the animals two or three times a day rather than allowing access to an unlimited supply in the self-

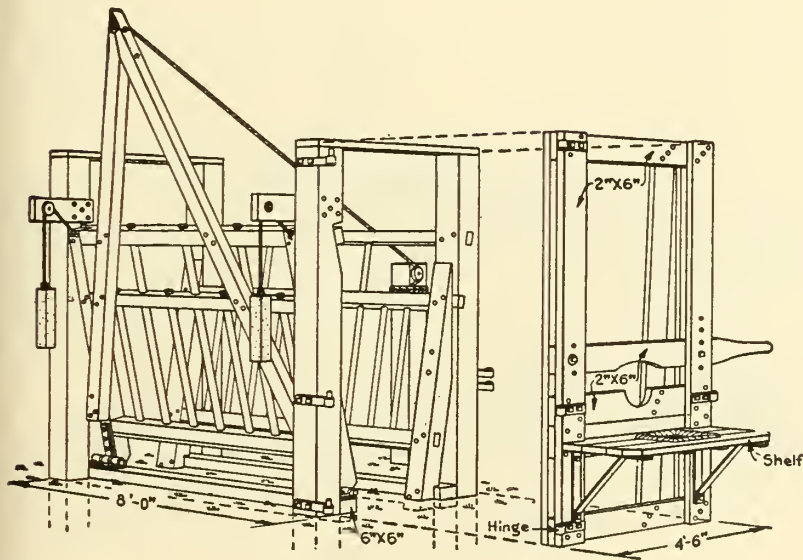
feeder. After the cattle are on full feed, very little difficulty should be experienced with the self-feeder.

The feeder should be jacked up and set on blocks to reduce rotting of the runners. The end doors facilitate filling from a truck. Size 6 by 14 feet holds 150 bushels of ear corn or 300 bushels of small grain.

Drawing No. 7241-5083 (1 sheet)



5083



## ← CATTLE SQUEEZE

A chute for holding cattle for dehorning, branding, or other operations is an important piece of equipment on ranches. The right side of the chute is movable so that the animals can be held snugly under pressure and without injury. The arrangement may be reversed

for branding on the left side. The front is so constructed that the head of the animal may be held firmly during dehorning. Chutes are frequently built as a feature of corral systems.

(See Drawing No. 5569, p. 61).  
Drawing No. 7241-5041 (1 sheet)



## CATTLE GUARDS

Guards set in a fence permit automobiles and trucks to pass freely, but deter cattle, hogs, sheep, and most horses and mules. However, gates are necessary for passage of animals. Three designs are available, each capable of supporting a 5-ton truck:

Drawing No. 7241-5468 of wood construction (1 sheet)

Drawing No. 7241-5469 of concrete and wood (1 sheet)  
(Not illustrated)

Drawing No. 7241-5470 of concrete and steel (1 sheet)  
(Not illustrated)

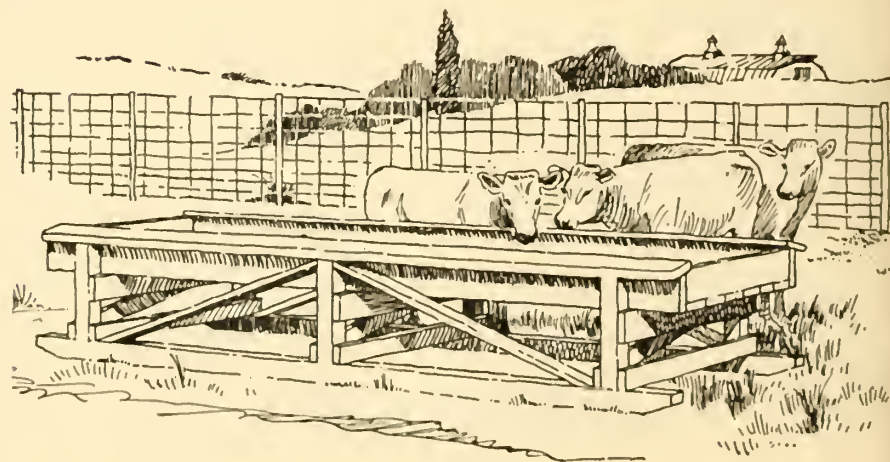
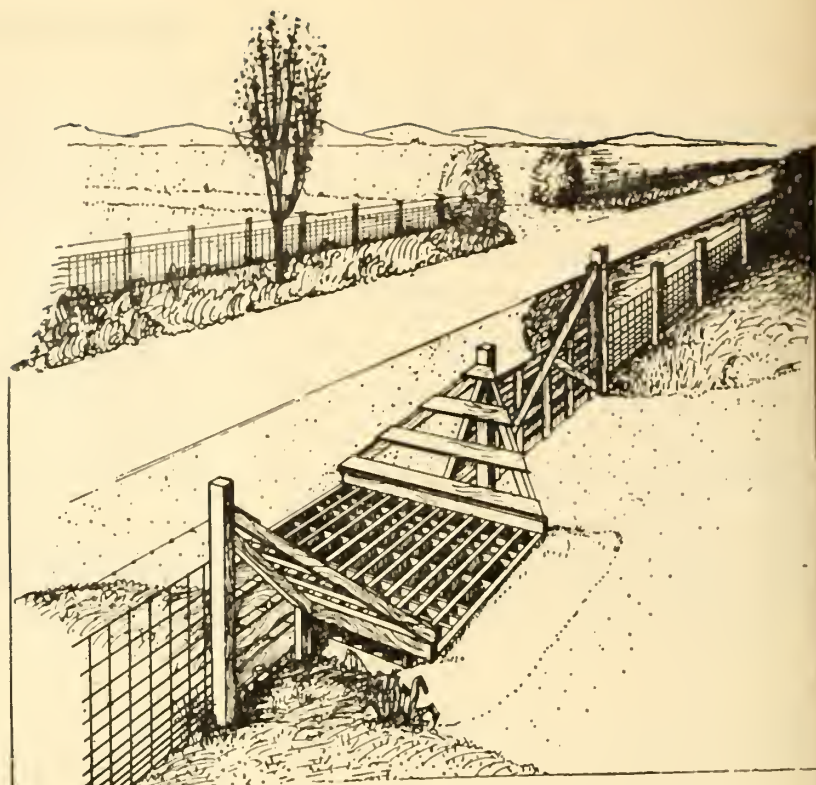
5468      \*5469      \*5470

## FEED TROUGH

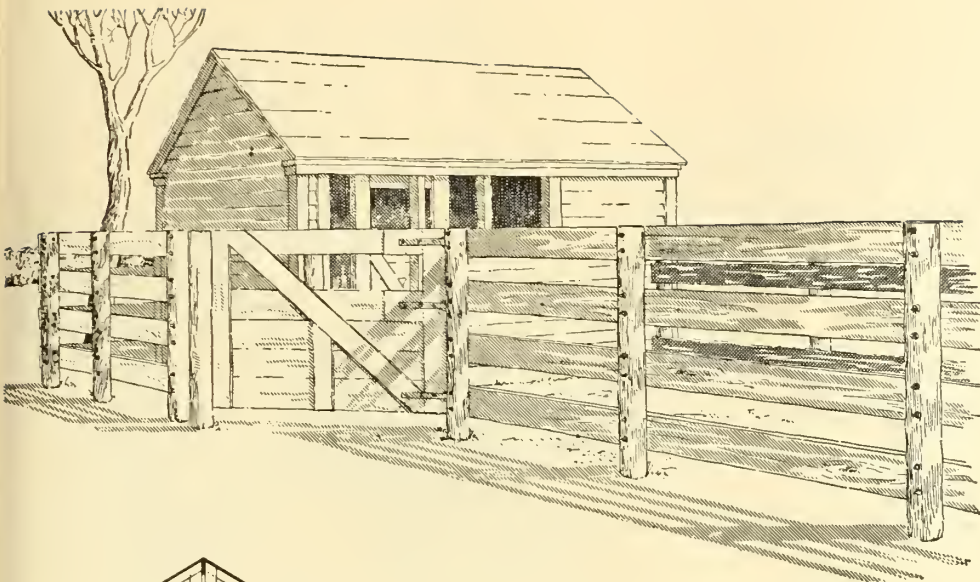
This trough has several desirable features. It is well braced, free of sharp corners, portable, and is so made as to prevent cattle from throwing feed from the trough. It could be made stationary by omitting the skids and extending the posts into the ground, or by setting the posts on concrete foundations. Stationary troughs should be located on a well-drained site and preferably on a pavement wide enough to give cattle full standing room on it all the way round. Size, 5 by 14 feet.

Drawing No. 7241-5094 (1 sheet)

5094



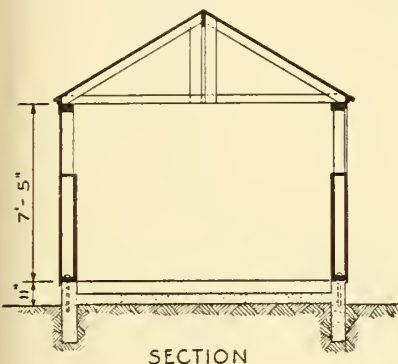




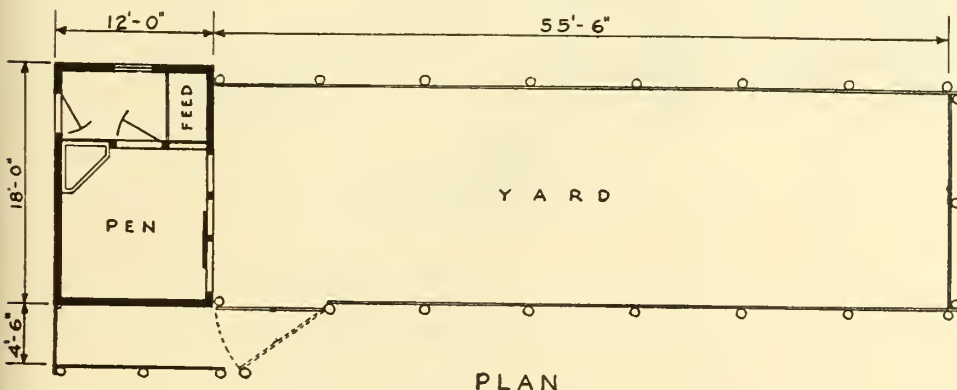
## BULL PEN AND YARD

Frequently persons are killed or injured by bulls as a result of improper equipment or wrong handling. Because of such risks bulls often are neglected in such essentials as feeding, exercise, removal of manure from pens, and other details of care. This "safe-keeper" pen is designed primarily for handling unruly bulls. The stanchion and manger can be reached from the feeding alley, while a sliding door, opening into the yard, is operated with ropes from the feeding alley, so the bull can be shut in the yard while the stable is being cleaned. A gate, the two posts 12 inches apart, and breeding rack are so placed that it is unnecessary to go into the yard with the bull. The pen may be a separate building or built inside the barn as a box stall. The exercise yard should be enclosed by a substantial fence; when a bull once breaks through a fence it is harder to confine him thereafter. Fences should be too high to jump—5 or 6 feet; solid fences are not desirable because bulls are more contented if they can see their surroundings.

Drawing No. 7241-5143 (1 sheet)



SECTION

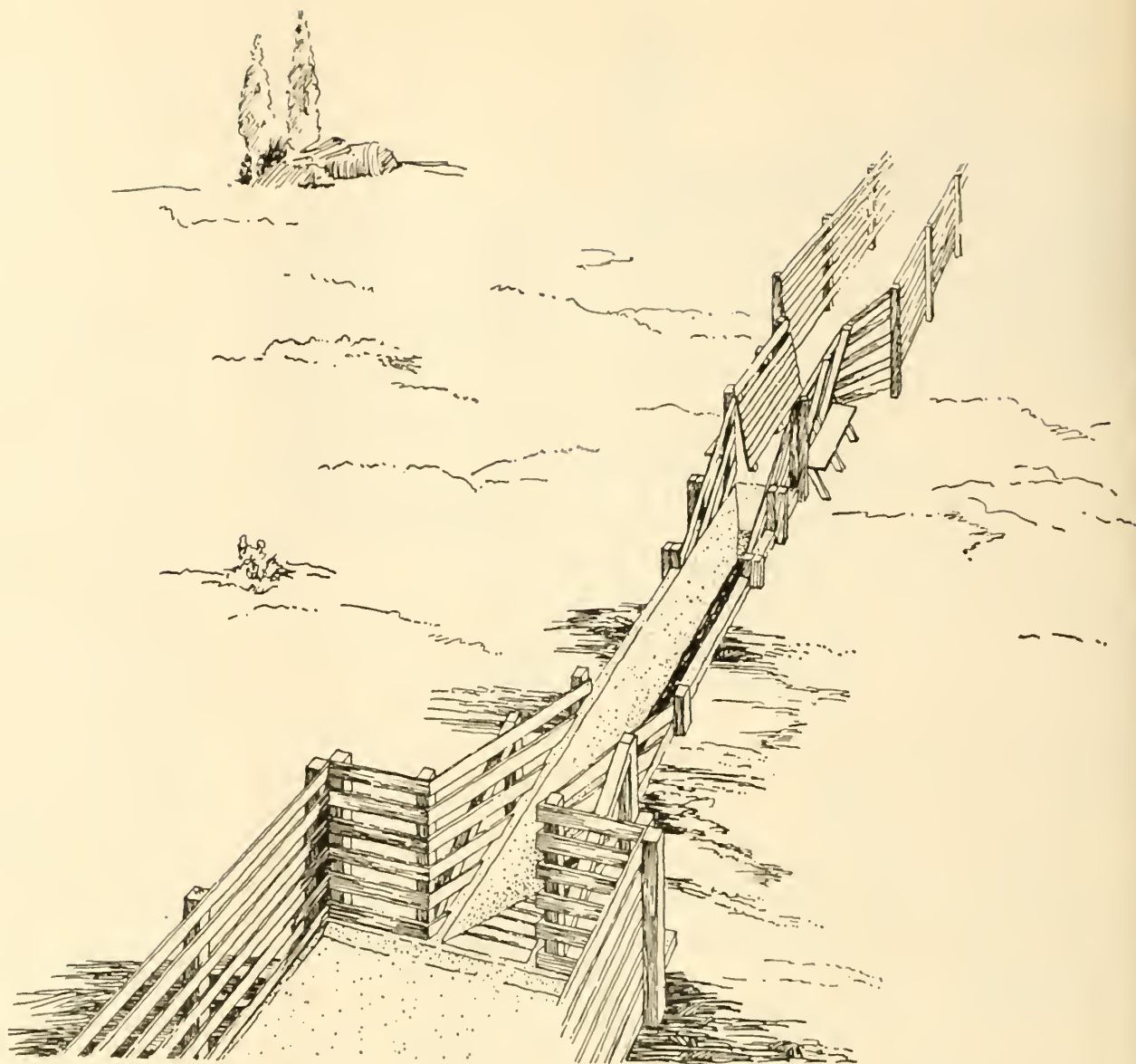


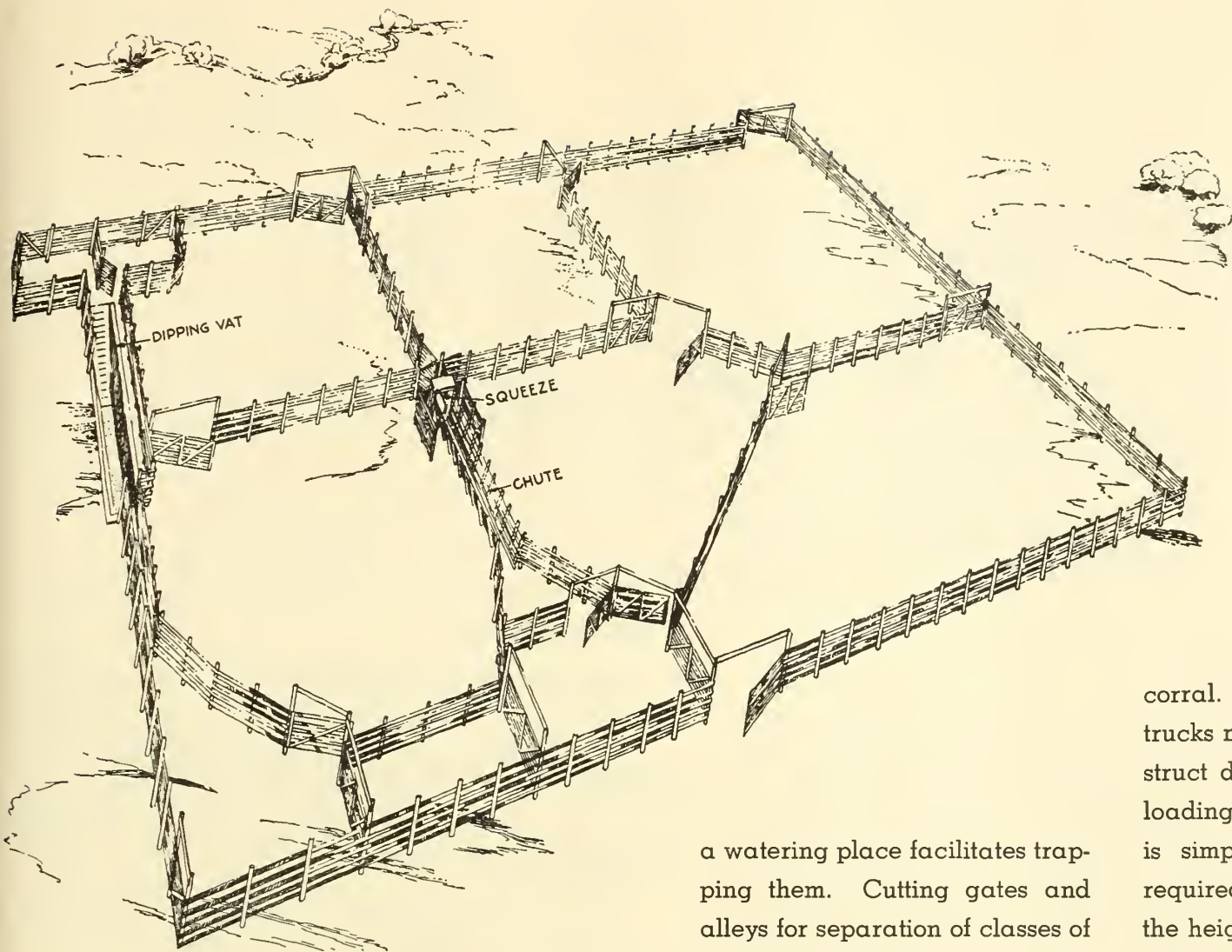
PLAN

## DIPPING VAT

Where it is necessary to dip large numbers of cattle, as in many sections of the range country, it is advisable to have a vat of this type. The vat is usually built at one side of the corral system (see drawing No. 5569, p. 61) so the heater for the dip solution, pumps, tanks, etc., can be located conveniently outside.

Drawing No. 7241-5568 (1 sheet)





Corrals vary in size, number, and arrangement of lots to suit individual needs. They should be located for ease in getting in the stock. A small pasture enclosing

a watering place facilitates trapping them. Cutting gates and alleys for separation of classes of cattle into various pens, branding and dehorning chutes, and dipping vats, should be located at strategic points. If the branding chute is properly located the branding fires can be outside the

## CORRAL

corral. The extensive use of trucks makes it advisable to construct docks for loading and unloading stock. The construction is simple, and the dimensions required may be determined from the height and width of the truck body being used. Care should be exercised to allow sufficient slope to the platform approach, which should be cleated to prevent slipping.

Drawing No. 7241-5569 (2 sheets)





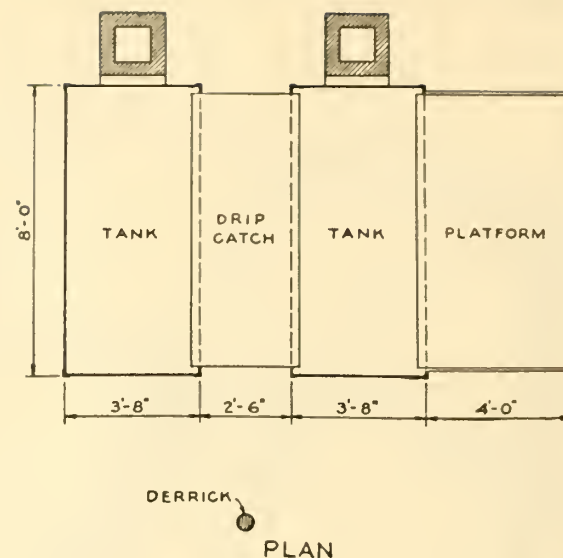
## CREOSOTING PLANT

Where a large number of fence posts are to be treated, a well-arranged plant is almost essential. This lay-out provides for two tanks, a draining platform, and a derrick for handling the posts. Eighty posts at one charge (or 560 posts daily) are placed in one vat, covered with creosote, and then boiled for 1 hour at a temperature of  $210^{\circ}$  to  $220^{\circ}$  F. The posts are then placed in a vat of cold creosote and submerged for 1 hour, after which they are put on the draining rack to dry. The approximate cost of treatment is 10 cents per post.

The drawings show also a convenient plant using oil drums for vats, adaptable to a small number of posts.

Drawing No. 7241-5571 (1 sheet)

5571



## Creosoting Plant

Hot and cold vats constructed of six oil barrels, tops and bottoms removed except at ends of vats; barrels butt-welded and cylinder split horizontally to form two half-round troughs 17 feet long. Convenient for treating timbers. (Not illustrated.)

Drawing No. 7241-5090 (1 sheet)

\*5090

## Farm Gates

Five types of farm gates suitable for general and special use, and three passages are detailed. (Not illustrated.)

Drawing No. 7241-5505 (1 sheet)

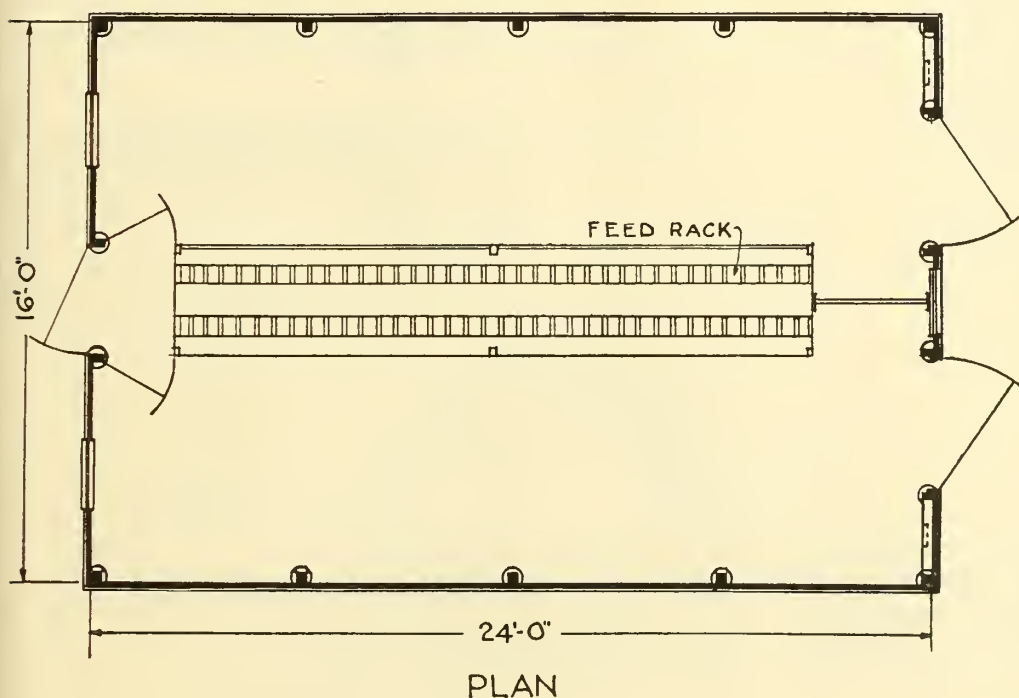
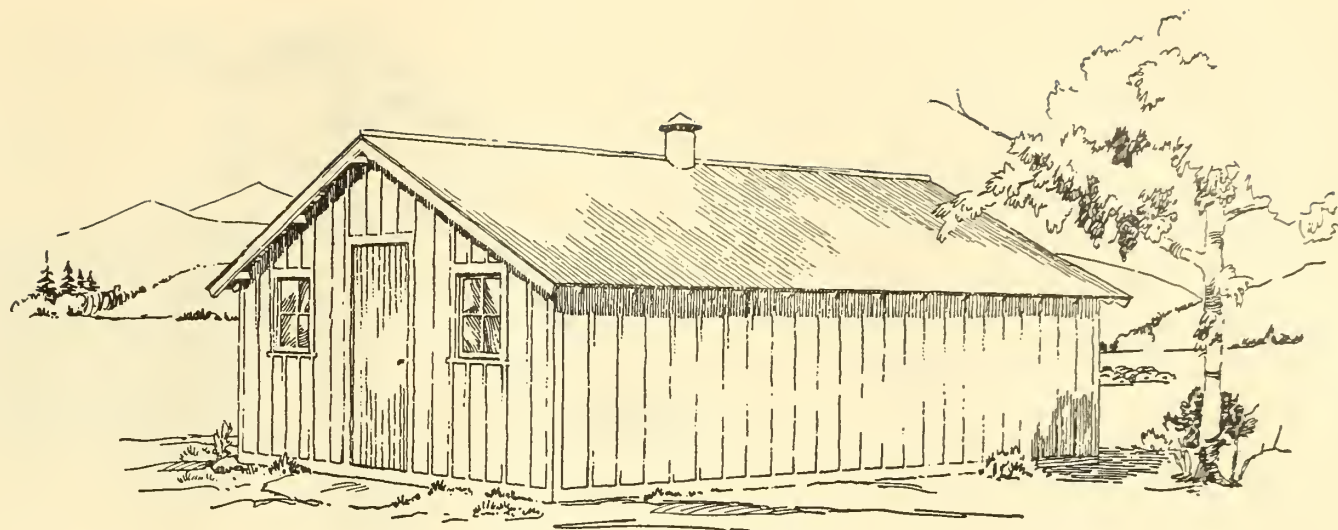
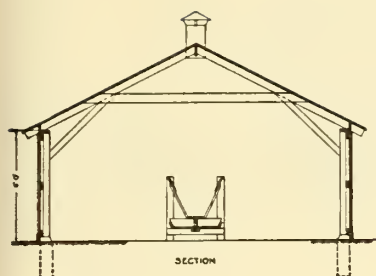
\*5505

## Auto-Bumper Gate

Gate pivoted on central post, which is opened by running against it with the bumper of an automobile. It is self-closing. (Not illustrated.)

Drawing No. 7241-5614 (1 sheet)

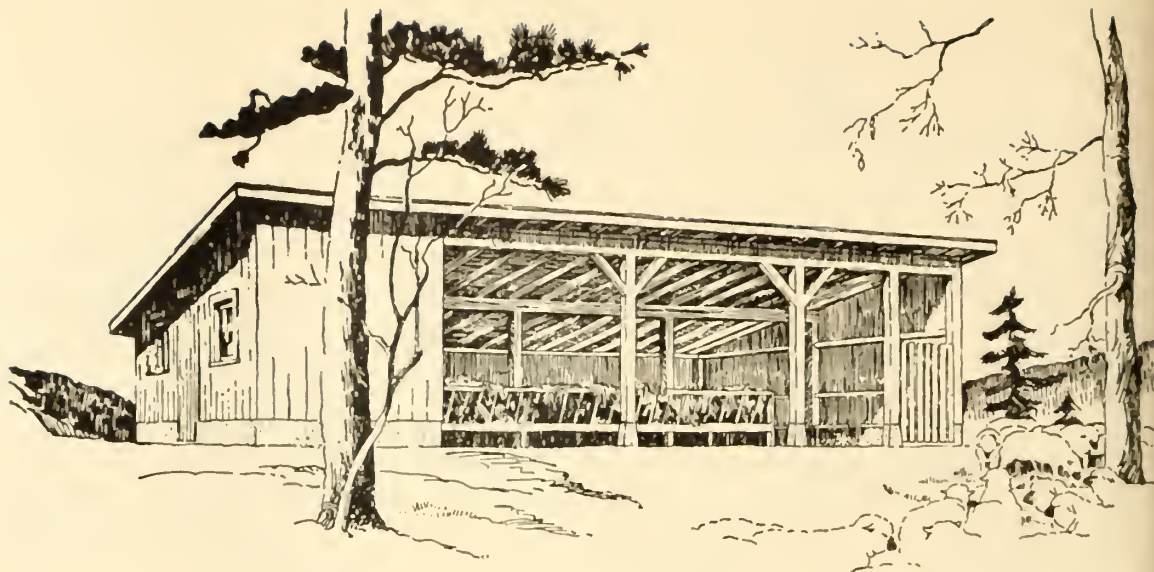
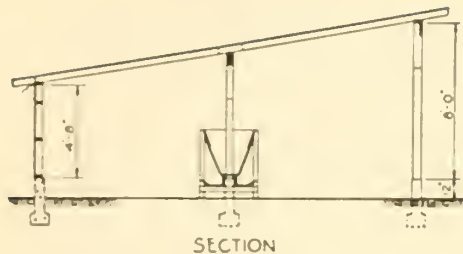
\*5614



## SHEEP SHED

This simple type of closed shed is especially adapted for farms where the main barn has a large feed-storage space but not enough floor space for the stock. The shed is 16 by 24 feet, has room for 26 sheep and is suitable for winter lambing. The windows should be hung on center pivots to provide for a full opening. The upper half of the rear doors is hinged at the top. The walk-through rack avoids disturbing the sheep while feeding.

Drawing No. 725-5019 (1 sheet)

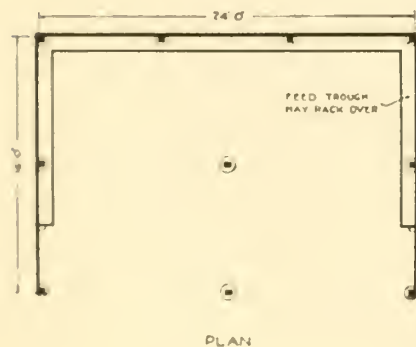


## SHEEP SHED

A practical shed which can be lengthened to accommodate different-sized flocks. The 30-foot length shown will provide for 40 sheep. The walk-through feed trough is easily filled from the feed room at one end of the shed. Wire fencing at the open front protects the sheep from dogs.

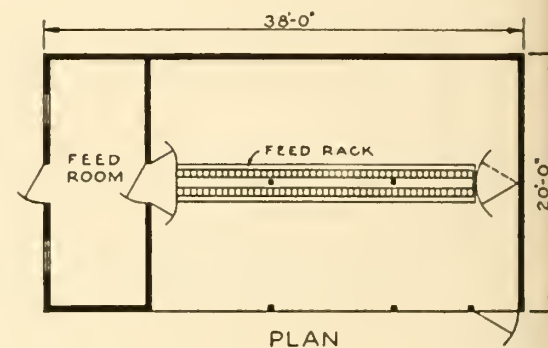
Drawing No. 725-5572 (2 sheets)

5572



### Sheep Shed

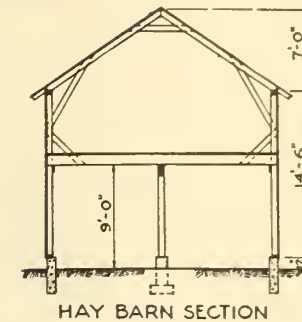
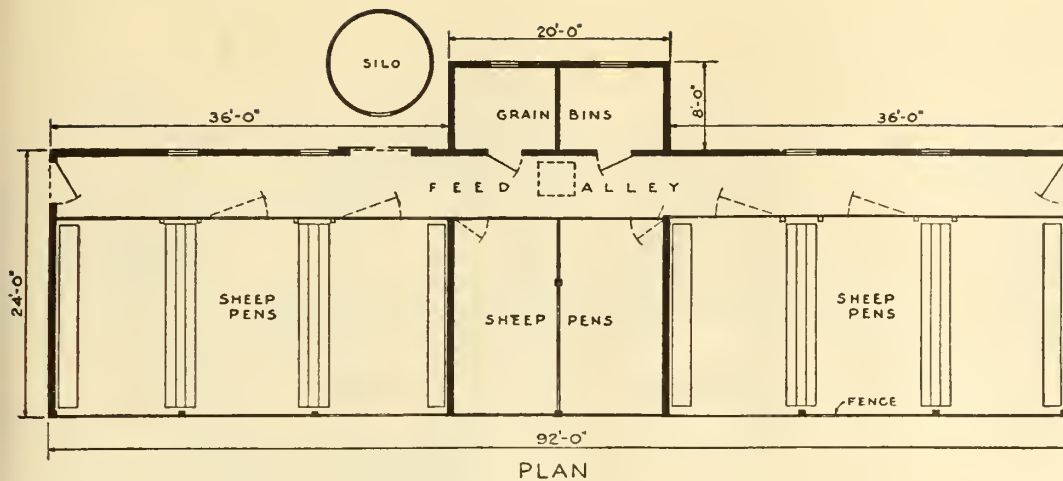
The plan shows an open shed, similar in design to drawing No. 5572. When well protected by trees, this type of structure is satisfactory for mature sheep in almost any section. There is not sufficient pro-



tection for winter lambing in a cold climate, but in the South it may be used for this purpose. Will shelter 30 mature sheep. (Not illustrated.)

Drawing No. 725-5025 (1 sheet)

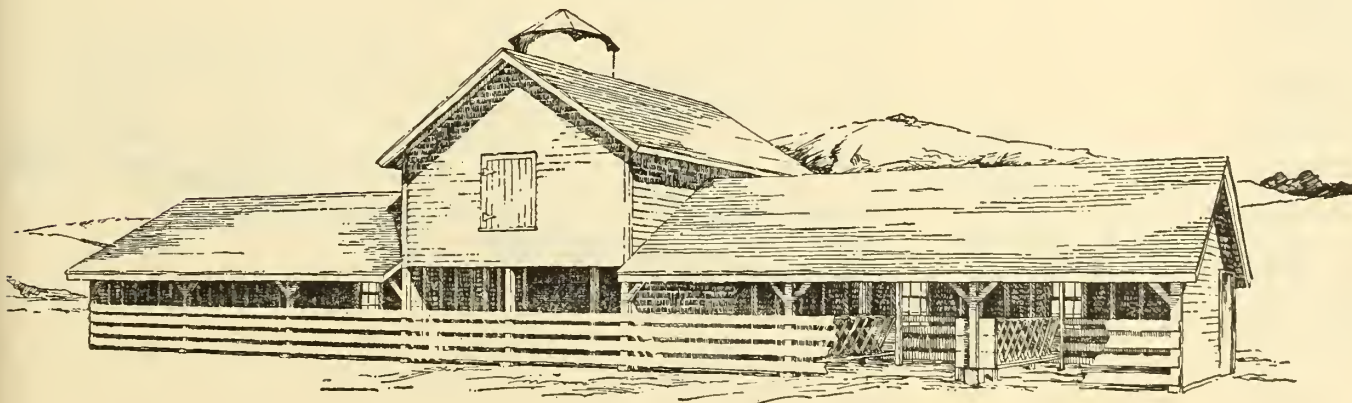
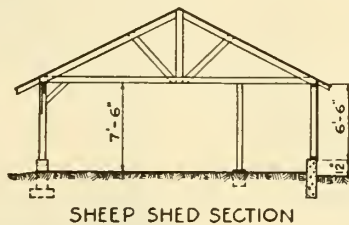


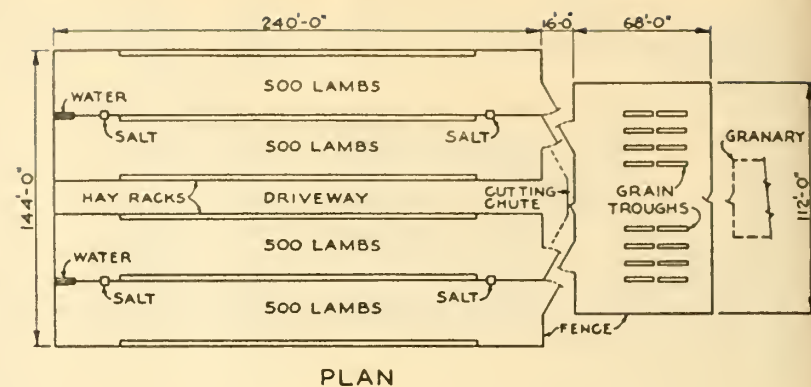
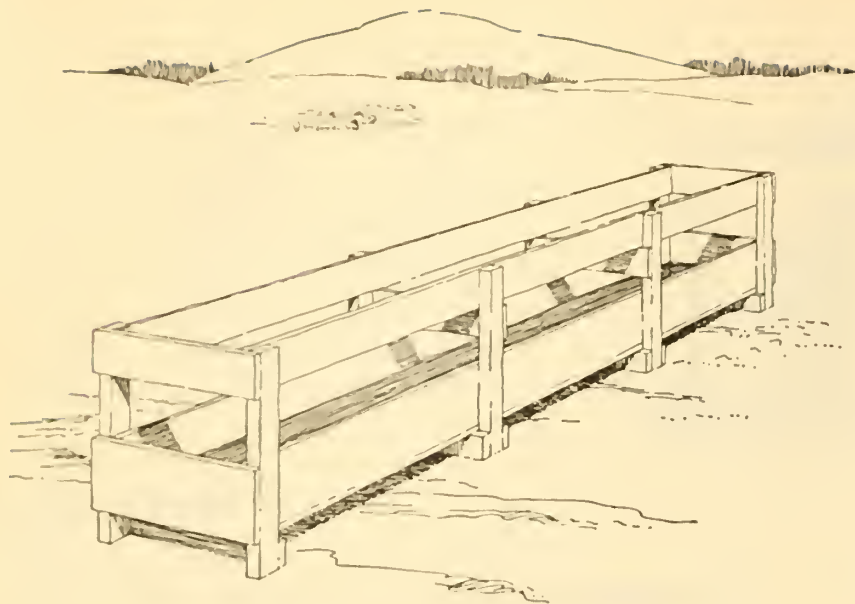


## SHEEP SHED

An economical lay-out for 200 sheep. The two-story central part contains two pens, feed alley, two 450-bushel grain bins, and a mow for 10 tons of loose hay. The one-story wings provide three pens on each side and additional pens may be added. Each pen has removable feed racks. A galvanized metal roof over 1- by 4-inch roofing slats could be used.

Drawing No. 725-5573 (2 sheets)

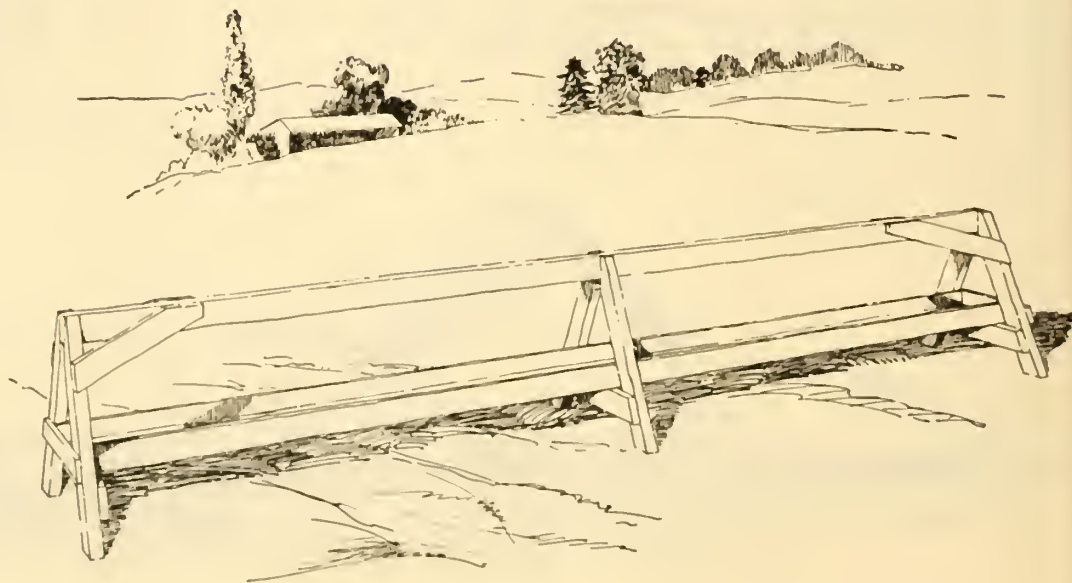


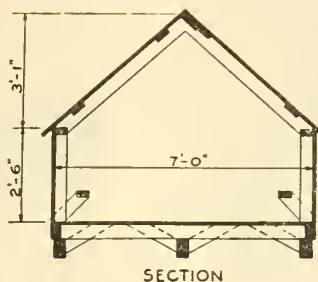
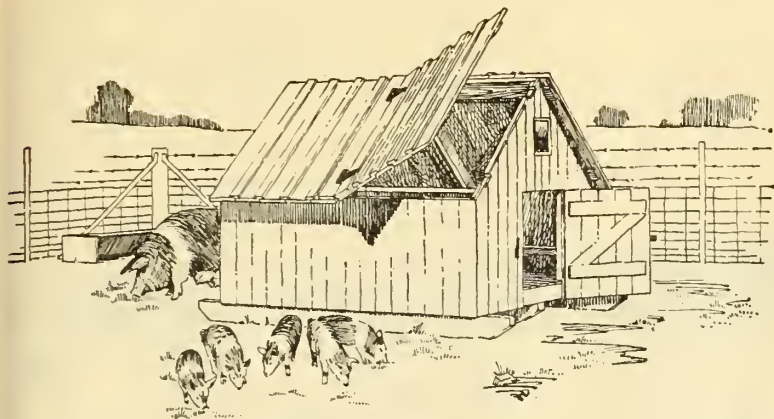


## SHEEP FEEDING YARDS

The suggested lay-out for handling 2,000 lambs reduces the labor of supplying hay and grain to troughs. The arrangement of gates and the cutting chutes permits rapid segregation of the lambs into various groups for grading or special attention. Details of feed troughs are shown on the drawings.

Drawing No. 725-5574 (1 sheet)

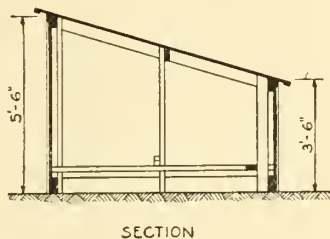
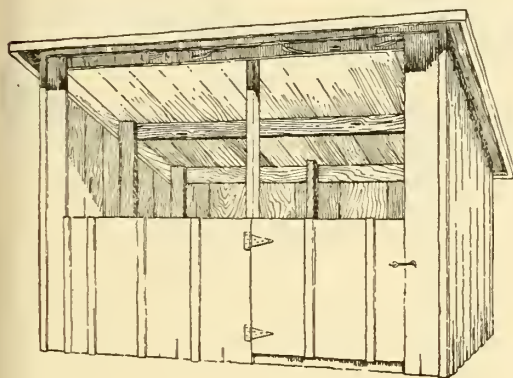




## ← GABLE-ROOF COLONY HOUSE

The box-type house is preferred by many experienced hog men. This 7- by 8-foot house has one-half of the roof at the front, hinged for throwing back on the rear half to admit sunlight and for ventilation. Guardrails prevent the sow from lying on the pigs. The skids should be set on blocks to prevent rotting.

Drawing No. 726-5065 (1 sheet) **5065**

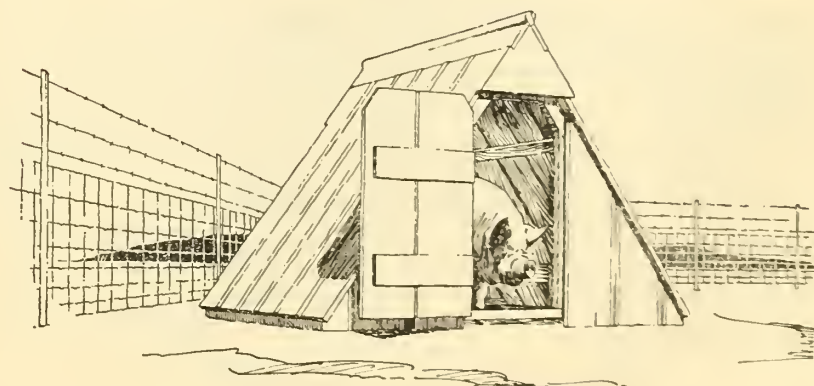


## A-TYPE COLONY HOUSE →

## ← SHED-ROOF COLONY HOUSE

Three different fronts are suggested on the drawing for this 7- by 7-foot shelter to meet the degree of protection desired. It may be easily loaded on a wagon or truck for transporting to clean ground or to storage when not in use. The shelter can be directly on the ground or on a wooden platform.

Drawing No. 726-5127 (1 sheet) **5127**



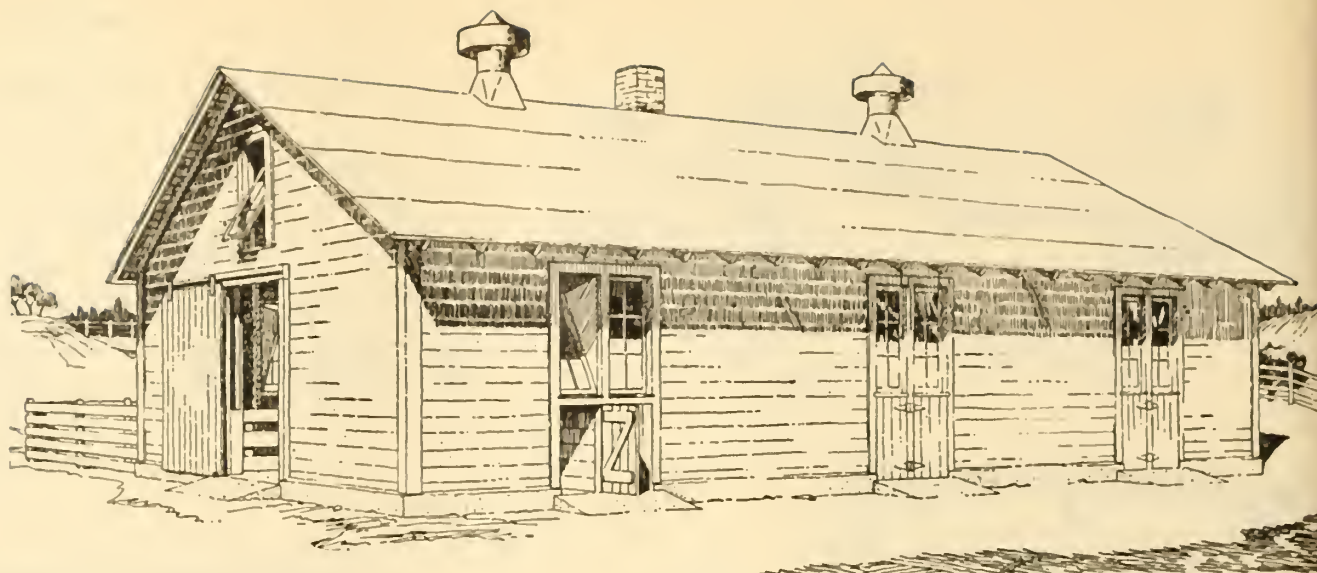
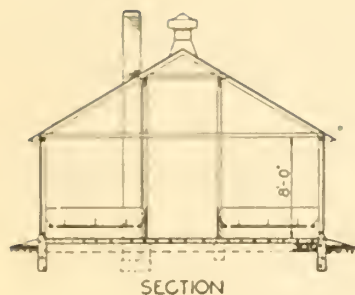
up and packing with straw is shown on the working drawing. The end ventilators with shields provide ventilation in cold weather when the building is closed. Guardrails are suggested for safety of small pigs.

Drawing No. 726-5271 (1 sheet)

The A-type house represents probably the minimum in investment for a satisfactory hog shelter. Omission of the floor reduces the work required in cleaning and disinfecting, and makes moving easier.

An alternate plan with a "store front," to permit lining

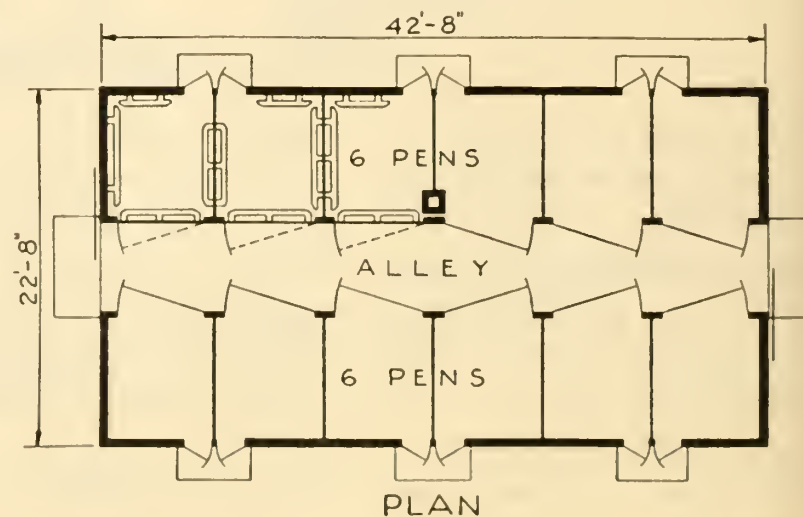




## FARROWING HOUSE

The farrowing house for the South should be dry and well ventilated. A gable roof provides for sunlight and ventilation, and a window in each gable provides a good circulation of air. To admit the maximum sunlight, the house should be placed with its length north and south. Doors in the side walls open into exercise lots.

Drawing No. 726-5575 (1 sheet)



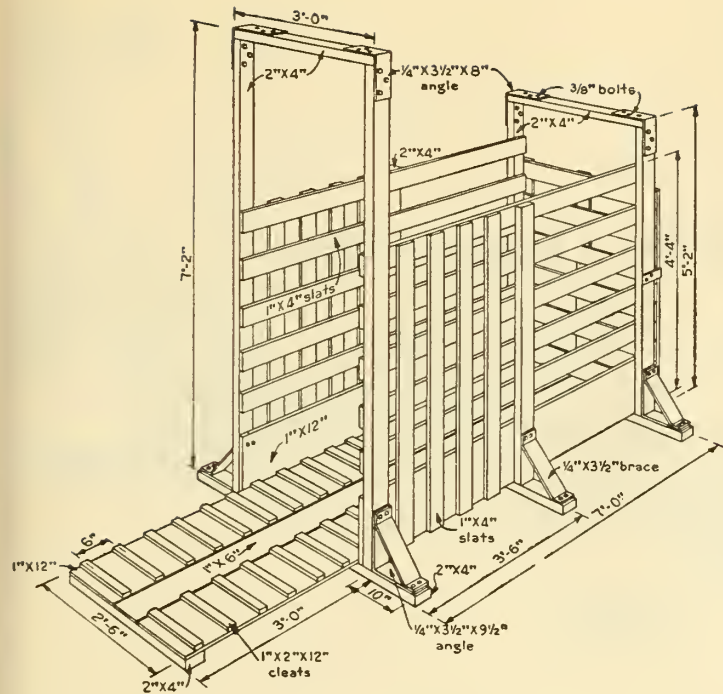
## ← BREEDING CRATE

Often boars are so large that they cannot be mated successfully to young sows without the use of a breeding crate. This home-made crate is easily constructed. The front end is hinged to form a gate which may be opened to let the sow out. When she is driven into the crate a 2- by 4-inch bar

is placed behind her to prevent her from backing out. A 2- by 8-inch plank is placed on each side of the sow to support the front feet of the boar, the forward end resting on one of the gate rails and the back ends on the cross bar behind the sow.

Drawing No. 7261-5040 (1 sheet)

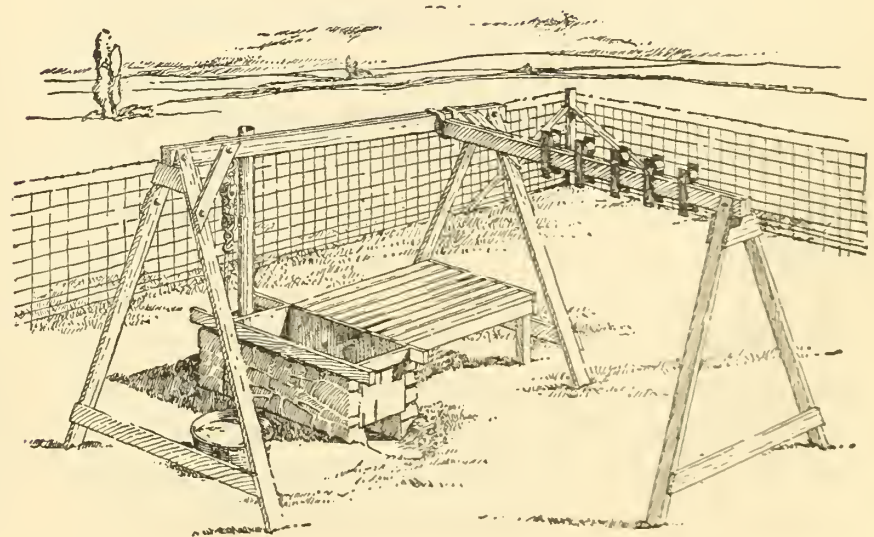
5040



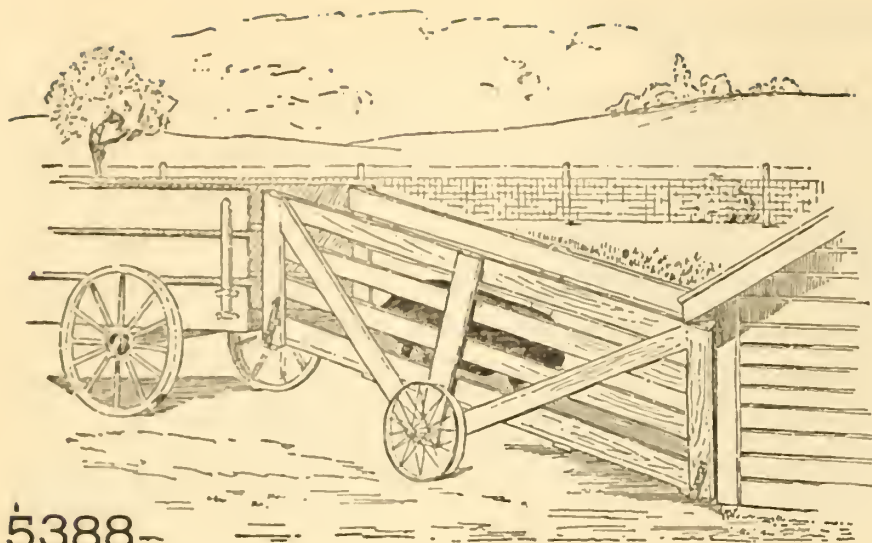
## HOG-SCALDING EQUIPMENT →

Hogs can be hauled to the site, slung aloft above the tub and bled, dropped into the scalding vat, rolled on the platform for scraping, and then hung by spreaders on the beam. Several farmers could combine in bearing the expense of construction. Especial care should be taken that proper sanitary conditions are maintained for disposal of blood and waste products. Some of this equipment can be folded up for moving to another farm or for storing.

Drawing No. 7261-5063 (1 sheet)







5388

#### ← MOVABLE LOADING CHUTE

A convenient piece of equipment for loading hogs or sheep. Wheels and other necessary irons often can be salvaged from old implements.

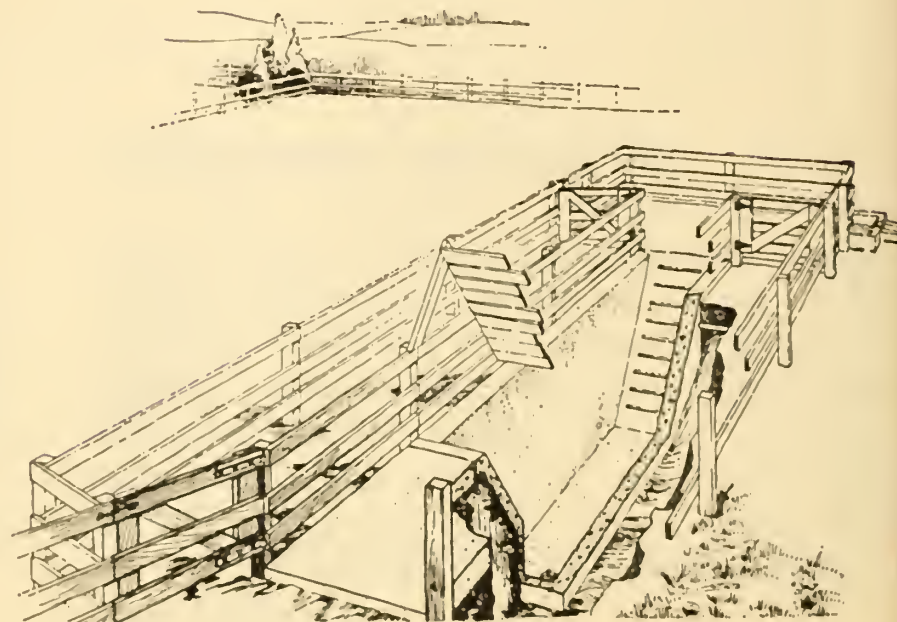
Drawing No. 7261-5388 (1 sheet)

#### DIPPING VAT →

Dipping vats are in common use where a number of hogs must be disinfected or treated to suppress lice. Concrete is one of the most satisfactory materials, but galvanized metal is sometimes used. Vats made of wood are not durable enough for permanent installations. Metal tanks should be set in a pit lined with boards to prevent soil pressure against the sides of the tank. The boards will rot quickly unless creosoted. The concrete should be of a good, rich, watertight mixture.

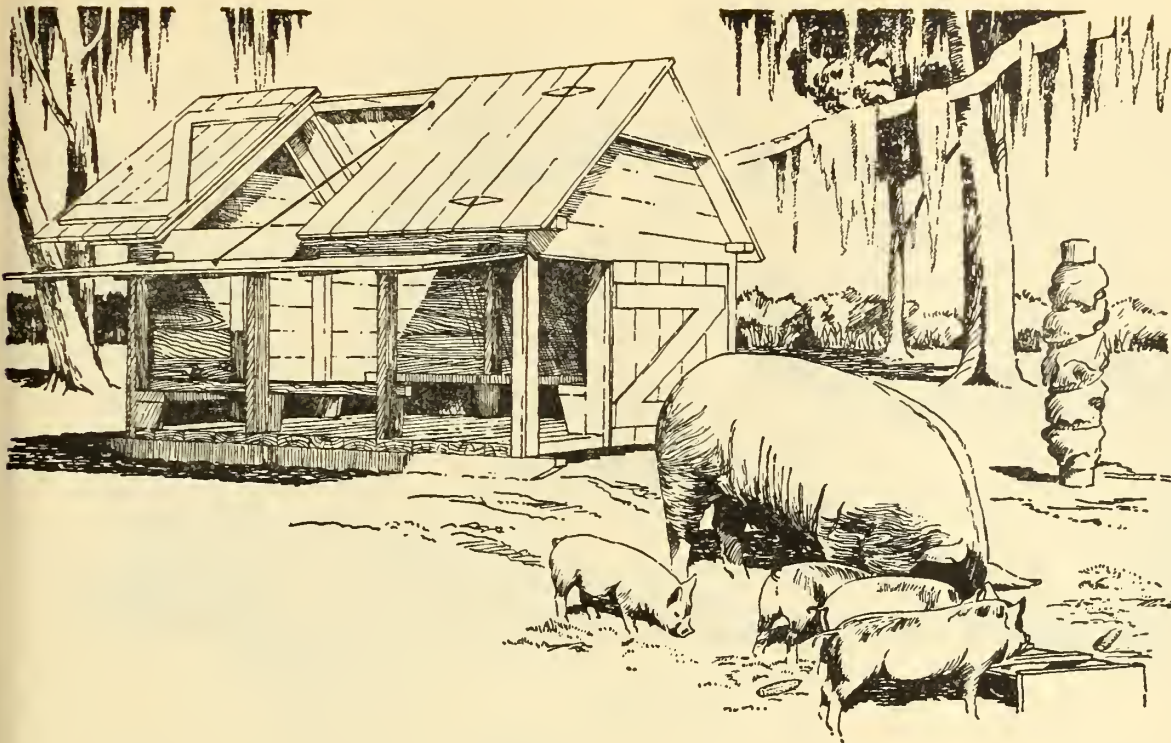
The exit slope should be well cleated so the hogs can easily climb out. A roof over the approach prevents hogs jumping into the tank and splashing out the dip. Drains at the lowest point of the bottom permit thorough emptying of the tank.

Drawing No. 7261-5390 (1 sheet)



5390





## HOG-LOT EQUIPMENT

Any club boy or owner of one sow and her pigs would enjoy caring for them with the equipment and lot shown on these plans. Full details are given for a self-feeder, slop trough, water barrel, creep for small pigs, box-type house, shipping crate, and rubbing post.

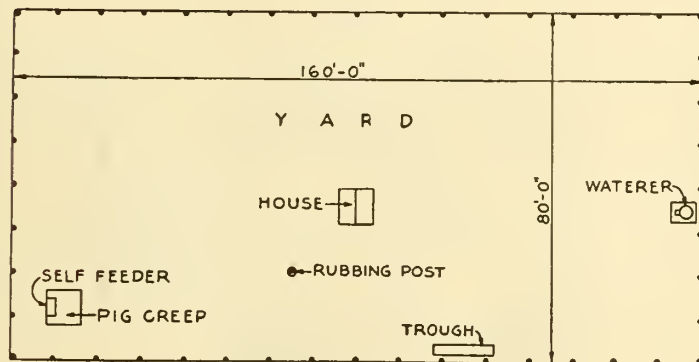
Drawing No. 7261-5576 (1 sheet)

**5576**

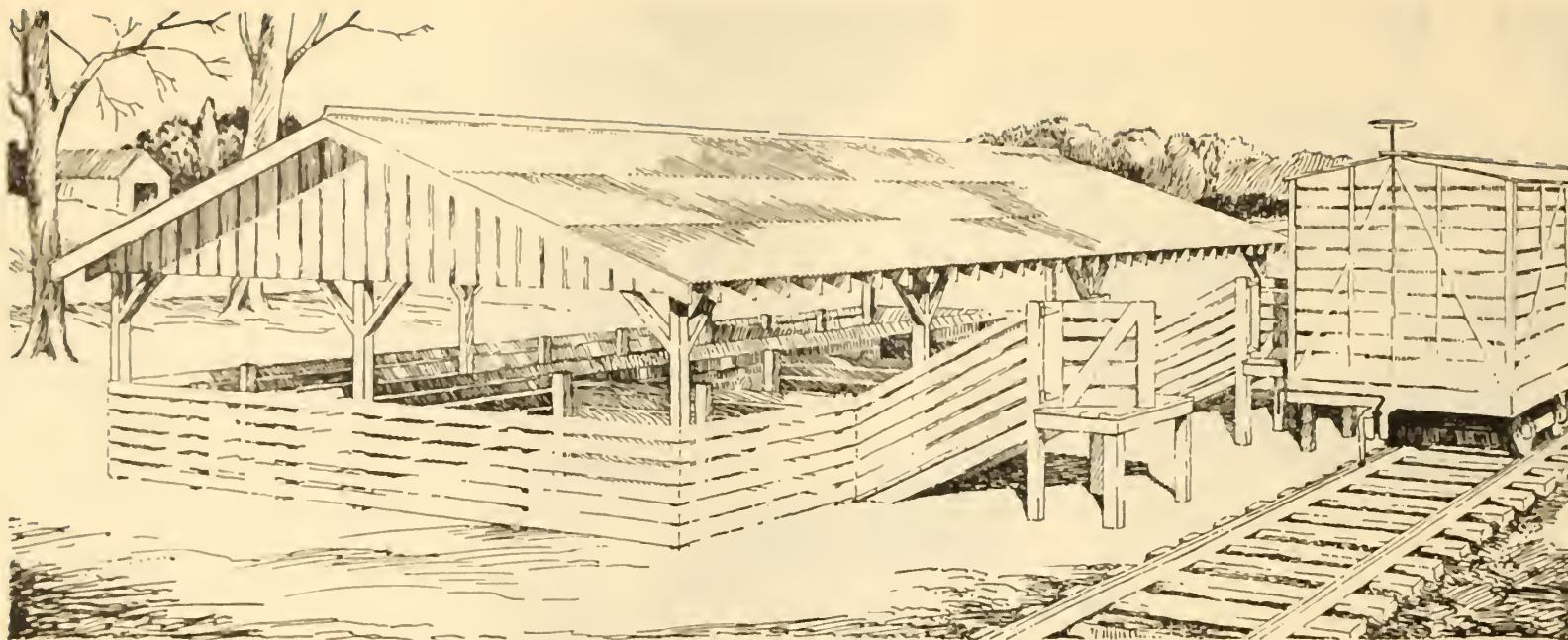
### Hog Troughs

Details of a small slop trough and a water trough that can be made economically by any one handy with tools. The troughs are low with extended ends which prevents them from being upset easily. (Not illustrated.)

\*Drawing No. 7261-5577 (1 sheet)



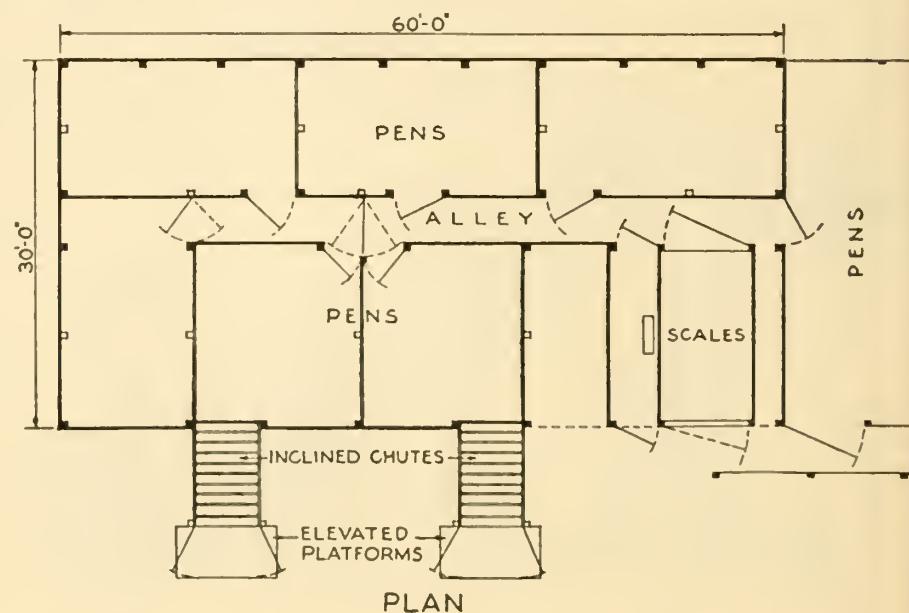
PLAN OF HOG LOT

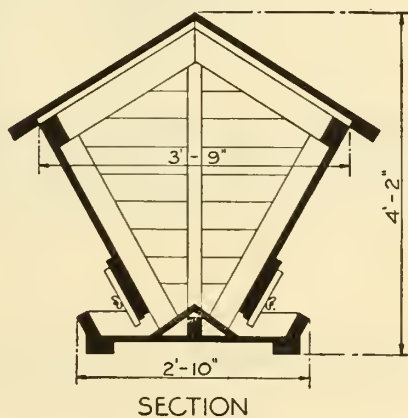
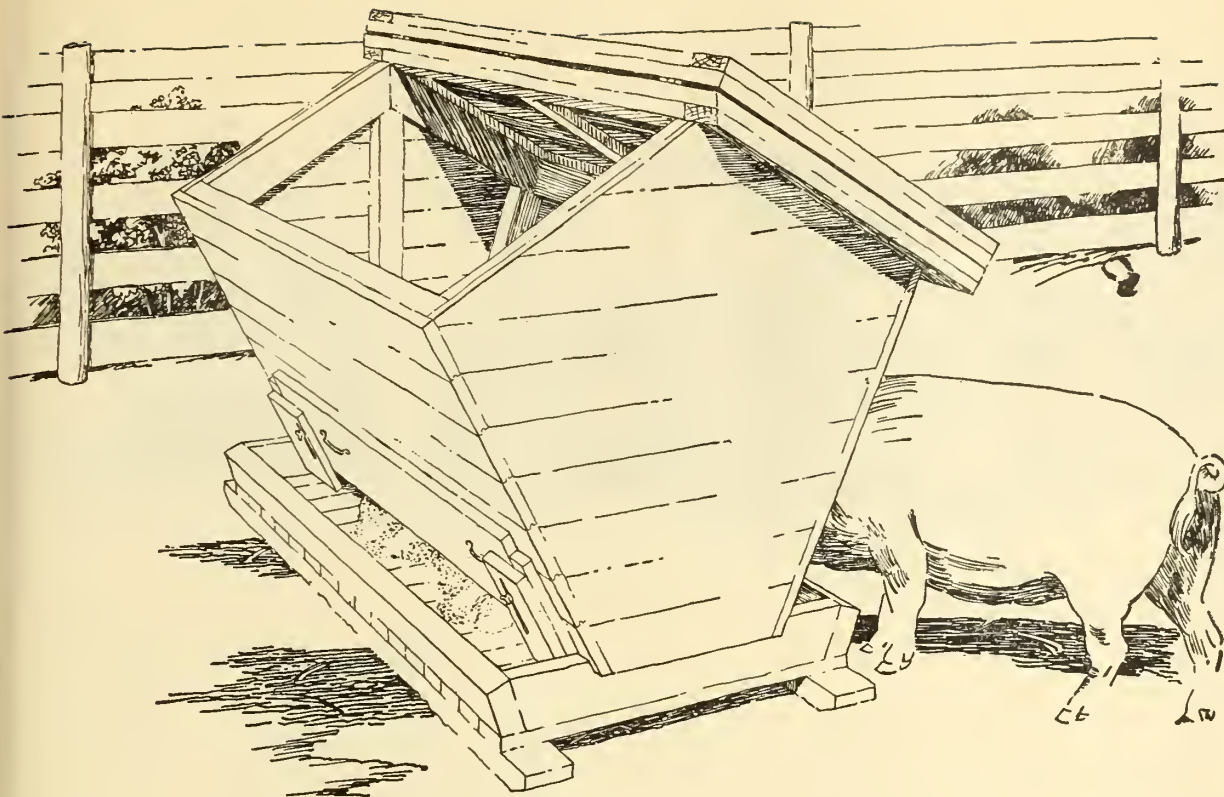


## GRADING SHED

A convenient arrangement of lots for grading hogs, which could also be built along a railroad siding for assembling hogs for shipping. A roof over the pens protects the animals in hot or stormy weather. A chute for handling truck shipments would be an added convenience.

Drawing No. 7761-5578 (1 sheet)



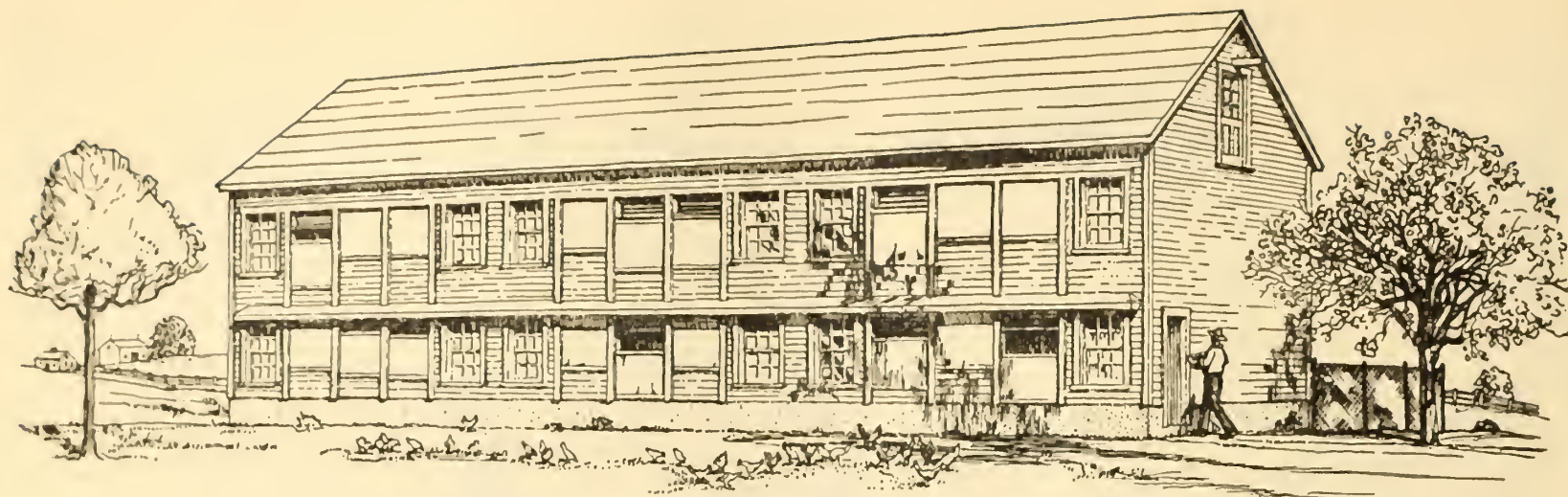


## SELF-FEEDER

A good self-feeder that will not clog is desired by most hog raisers. The adjustable board at the trough permits varying the outlet to suit different feeds and weather conditions. The feeder should be set on blocks to prevent rotting of the runners. Capacity 24 bushels of feed. Accommodates 40 pigs under 200 pounds weight for 3 or 4 days.

Drawing No. 7261-5579 (1 sheet)



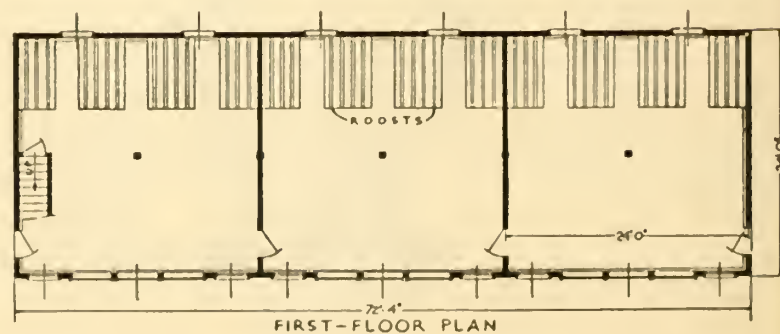
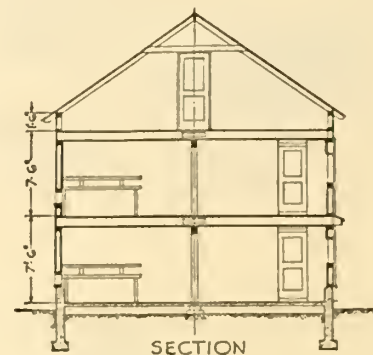


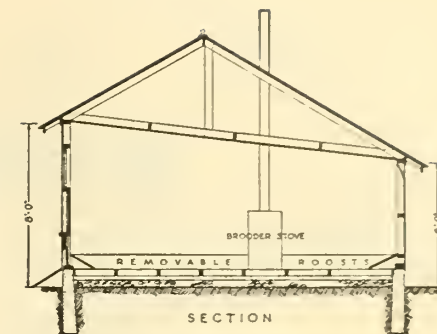
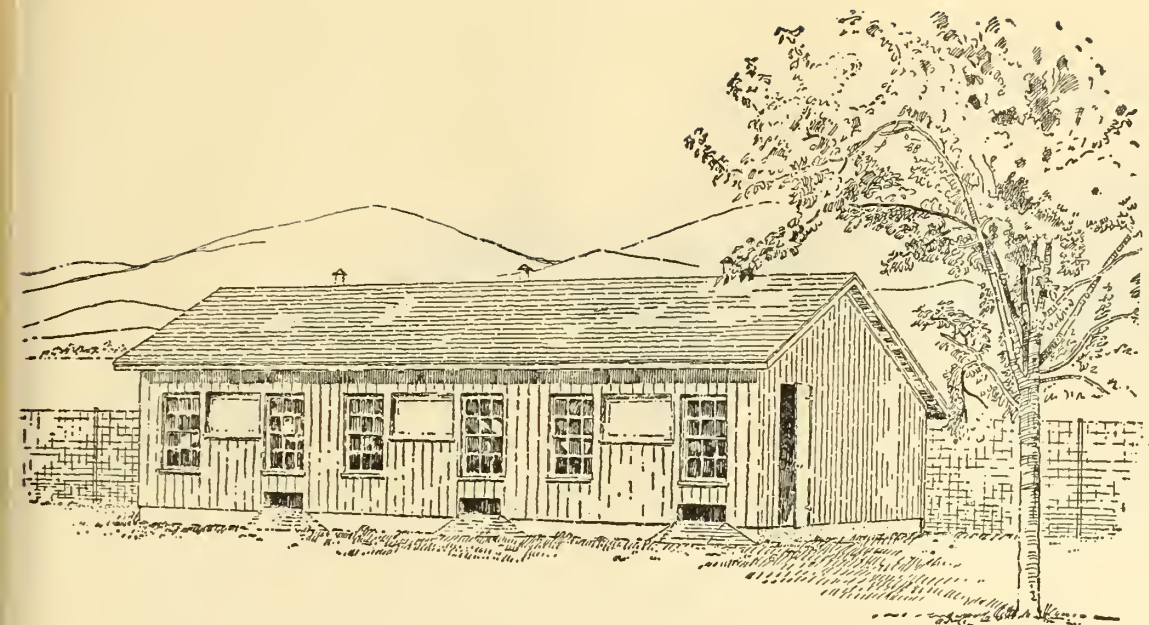
## POULTRY HOUSE

A two-story poultry house may be desirable where only a little land is available or it is high in value. The cost per bird is usually less than in a one-story structure and the labor of caring for the flock is less.

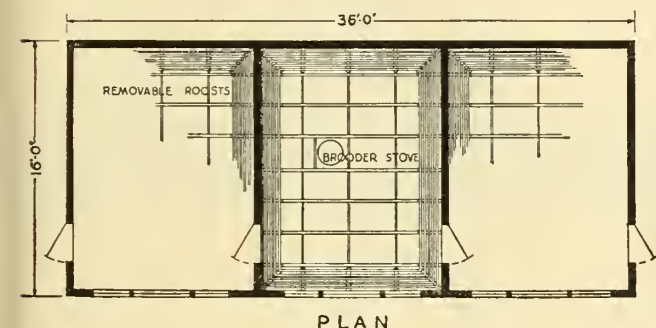
This house contains 6 pens holding a total of 850 to 1,000 birds and has a large attic for feed storage and work room. A cellar or pit could be provided for a heating plant. The pens are deep enough to prevent drafts from the screened openings striking at roost level. Vents between the joists aid in keeping the floor dry.

Drawing No. 727-5133 (5 sheets)





## BROODER HOUSE



PLAN

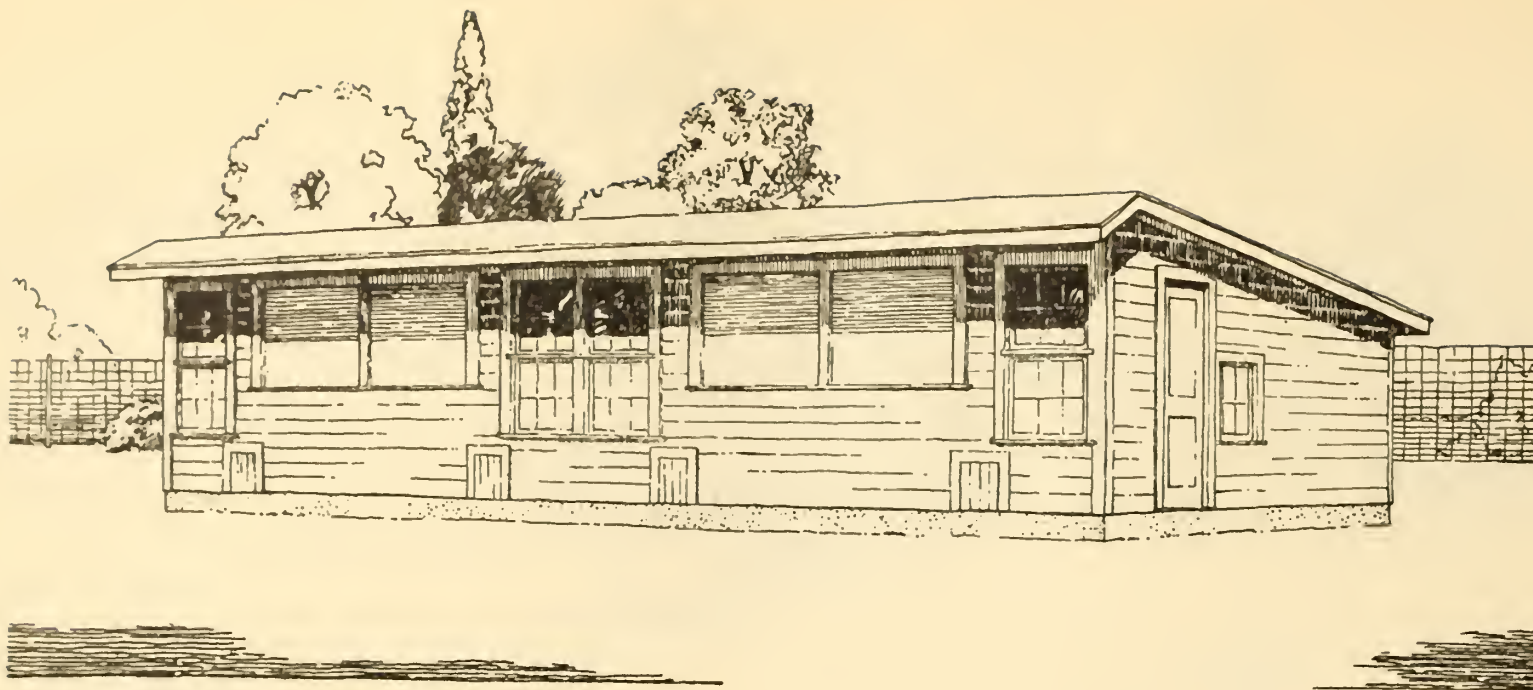
The plans for this house show details for the installation in each unit of a brooder stove and hover for 500 chicks. The outside walls are tightly sided and the ceiling is lined with  $\frac{1}{2}$ -inch insulation board. The inside of the walls may be insulated with the same material. Sufficient ventilation during cold weather will be provided through the muslin-covered openings. In warm weather the windows may be opened or re-

placed with muslin and the rear vents opened.

A sanitary floor or frame covered with hardware cloth is recommended to be used above the concrete floor to keep the chicks off the droppings. The house may be used for fattening pens or laying units. Details are shown of roosts which may be put in when the birds are old enough to use them.

Drawing No. 727-5291 (3 sheets)

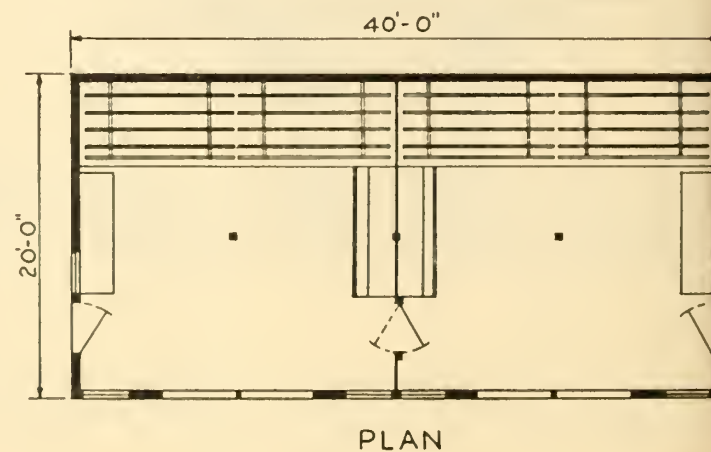
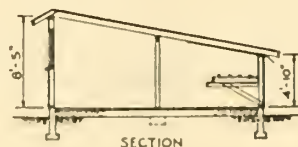




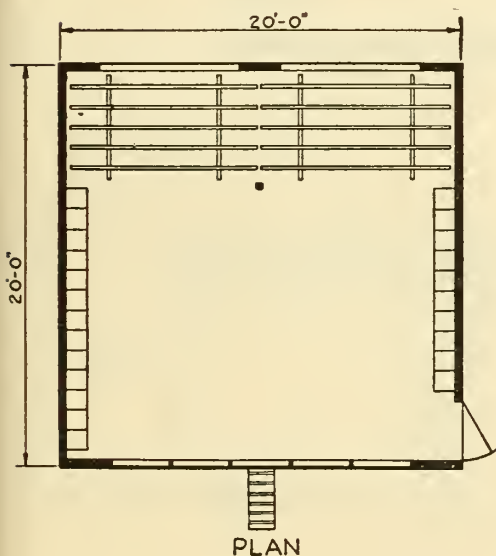
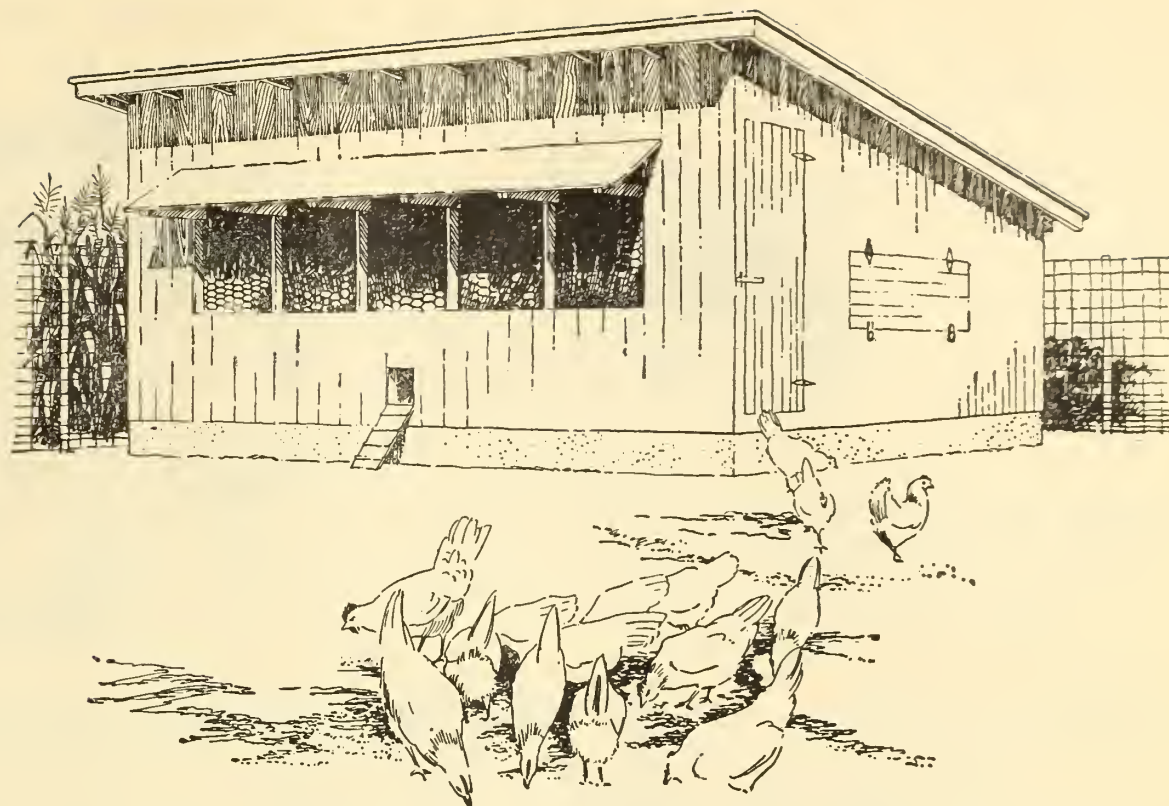
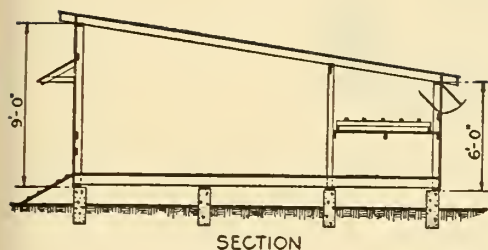
## POULTRY LAYING HOUSE

There is a wide difference of opinion regarding details of laying houses. This plan incorporates several good features and should prove a practical structure if kept clean and managed properly. Details are shown for wall nests and two types of hoppers. Capacity of each pen, 100 birds.

Drawing No. 727-5580 (1 sheet)





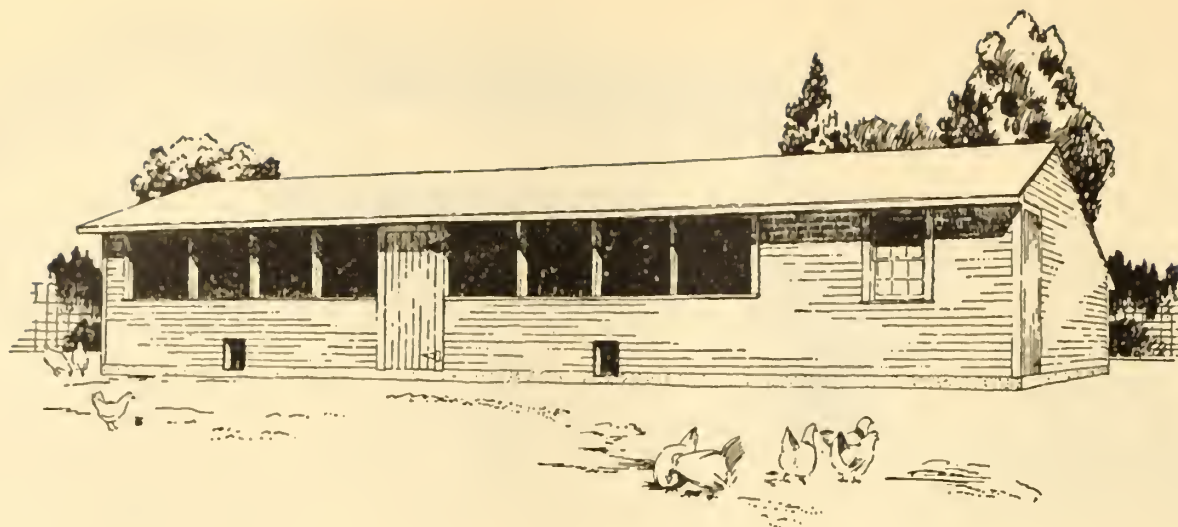


## POULTRY HOUSE

This is a simple type of house for 100 birds. The space under the floor should be ventilated by screened openings in the foundation to prevent rapid deteriora-

tion of the lumber. The large ventilator doors at rear and ends provide ventilation inside the building.

Drawing No. 727-5581 (1 sheet)



## POULTRY HOUSE

While two pens are shown in this poultry house others may be added to provide for larger flocks. Each pen will house 100 fowls. The feed room at one end is a convenience, but may be omitted if not needed. This house may be covered with a gable roof providing a straw loft for insulation, a combination roof, or a plain shed roof.

Drawing No. 727-5582  
(2 sheets)

## Poultry Lights and Water Heater

Wiring diagrams for three methods of lighting control, details of reflector, clock control and water heaters using electric bulb, and hotbed cable. (Not illustrated.)

Drawing No. 7271-5136 (1 sheet)

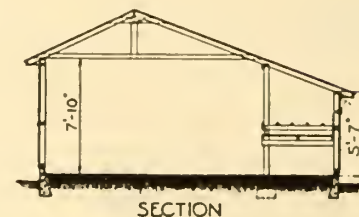
**\*5136**

## Poultry Burglar Alarm

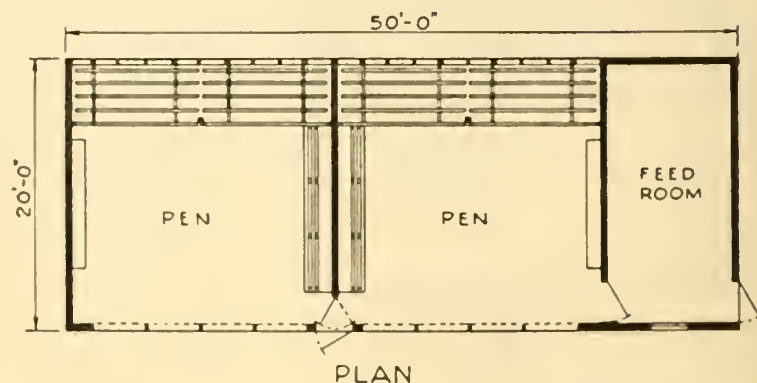
Wiring diagrams of double and single relay systems operating on 110 volts. Alarm sounded in farmhouse. (Not illustrated.)

Drawing No. 7271-5137 (1 sheet)

**\*5137**



SECTION

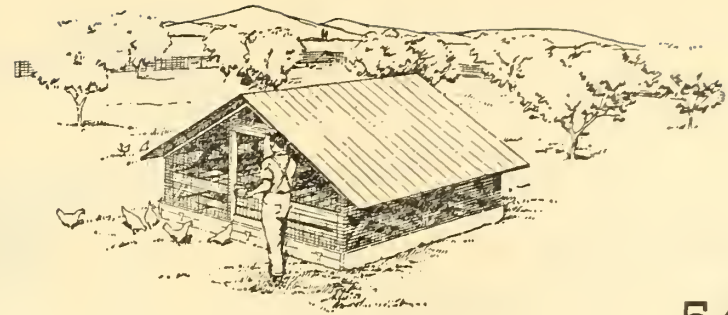


PLAN

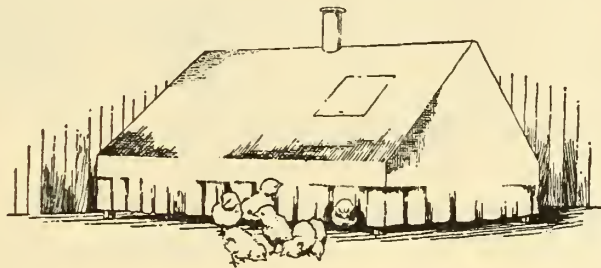
## SUMMER-RANGE SHELTER →

This 10- by 10-foot airy roosting shelter is not expensive and is easily moved to clean ground. It can be closed securely for night protection against predatory animals and is sufficiently weatherproof for the warm months. In case of necessity the sides might be covered with canvas to provide shelter until early winter.

Drawing No. 7271-5400 (1 sheet)



5400



## ← ELECTRIC BROODER

This brooder for 200 chicks can be easily built by anyone familiar with electrical equipment. Good connections and proper insulation are important in order to eliminate the danger of short circuits.

Drawing No. 7271-5583 (1 sheet)

5583

## HOME-MADE LAMP BROODER →

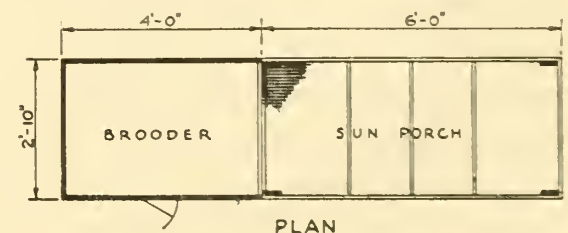
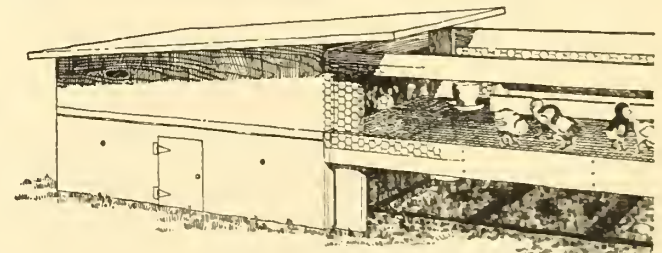
A practical, economical, and easily constructed brooder, which will facilitate raising early chicks. Capacity, 75 to 100 chicks.

The bottom of the brooder is of tin tacked to a 1- by 4-inch frame. Bottom and sides are made in separate sections to facilitate cleaning and moving to new locations. The brooder is heated with an ordinary oil lamp, which is placed with the top of the chimney about 1 inch below the floor of the top section. Two

lamps may be needed in cold weather. Two  $\frac{1}{2}$ -inch openings on each side of the brooder about 2 inches below the floor provide ventilation for the lamp. Sand is spread over the tin, and the lamp lighted 24 to 36 hours before placing the chicks, to dry out the sand, and to insure a uniform temperature.

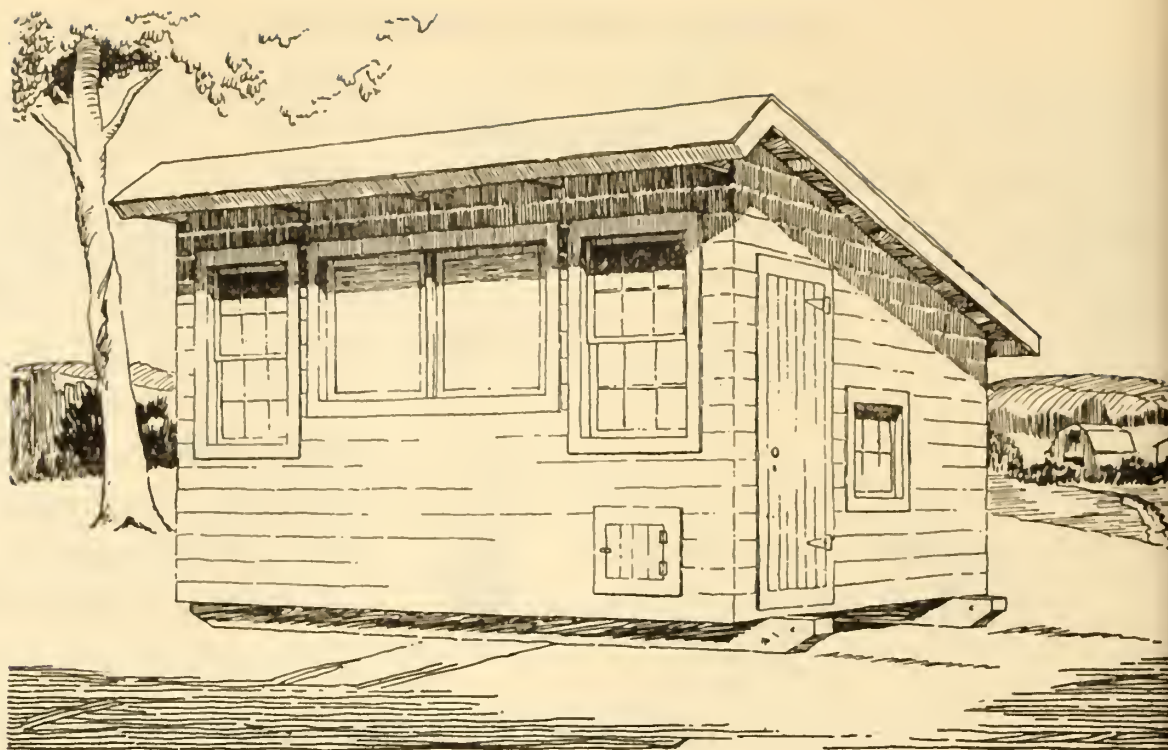
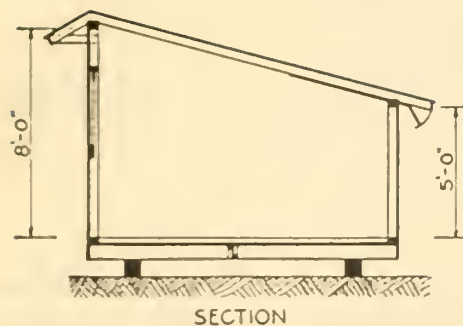
The sun porch with wire-cloth bottom is planned so as to keep chicks off contaminated soil.

Drawing No. 7271-5584 (1 sheet)



5584

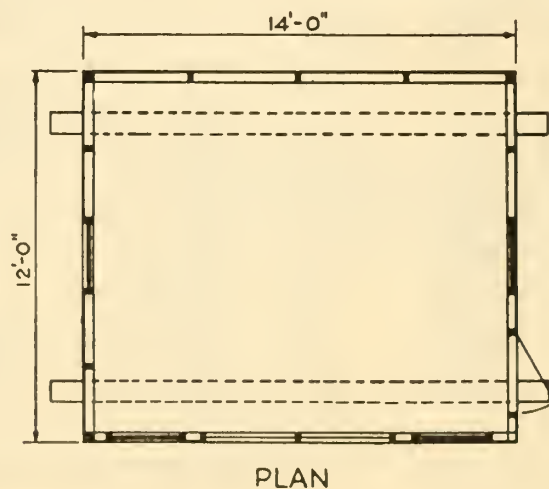




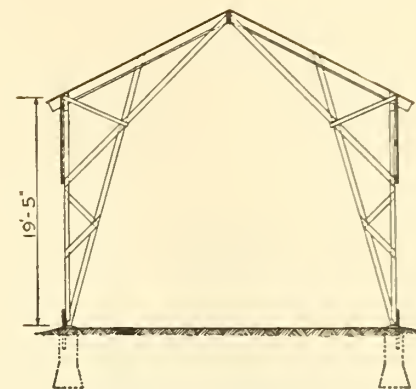
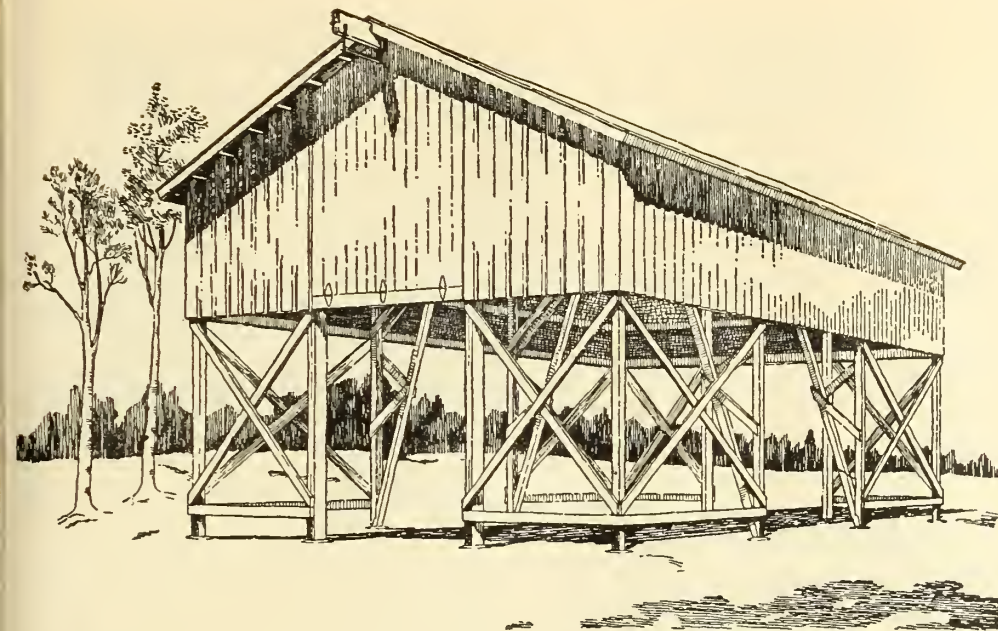
## MOVABLE BROODER HOUSE

A practical structure that can be equipped with different types of brooders and later provided with roosts. Easily moved. Capacity 400 day-old chicks.

Drawing No. 7271-5585 (1 sheet)

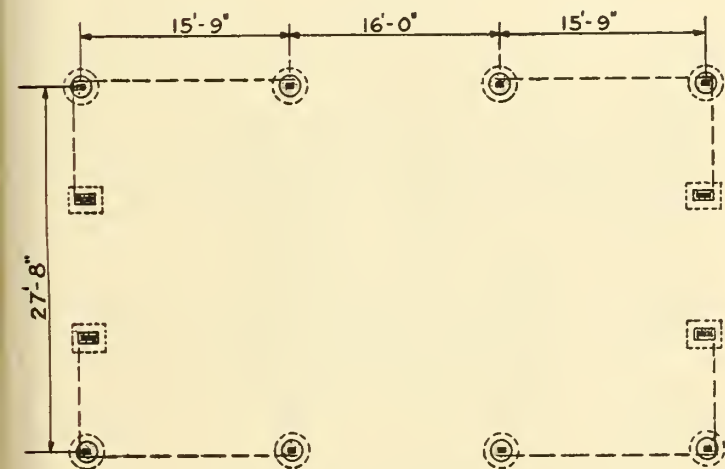


5585



SECTION

## HAY SHED



PLAN

This well-built shed on concrete piers provides good shelter for baled or loose hay. Trusses are spaced 16 feet on centers which permits the erection of a number of sections to provide the desired capacity; each section has a capacity of 20 tons of loose hay. When built more than 60 feet long a hay door in each end will be convenient. The upper half

of the structure is enclosed, generally a sufficient protection from the weather. Galvanized siding and roofing might well be used in place of the lumber and roofing shown. It may be built convenient to feed lots, or in the field, but should be on a well-drained site or encircled by a furrow to remove surface water. Drawing No. 731-5089 (1 sheet)

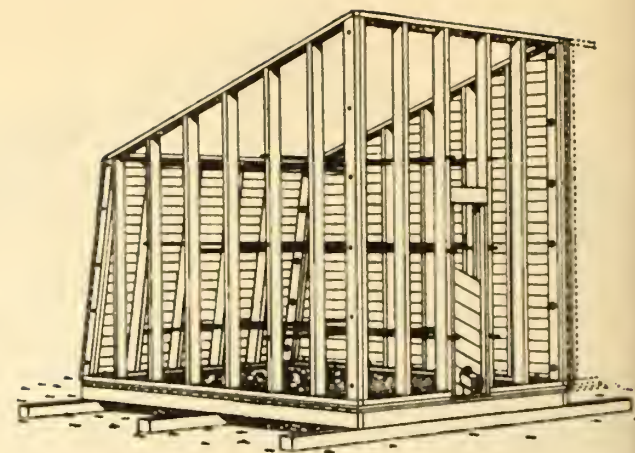




## STORAGE SHED

This semicircular shed was developed primarily for housing combines and other large machines or for the temporary storage of grain or cotton. Emergency storage is sometimes necessary because of an unusually large crop, an abnormal market situation, loss of permanent storage, lack of trucks, or for other reasons. Grain bins,

to grain is great in the Southern States, frequent observation and fumigation are needed to prevent damage to the grain. Bins intended for other than temporary storage should be carefully rat-proofed. The shed consists of built-up ribs covered with corrugated metal.

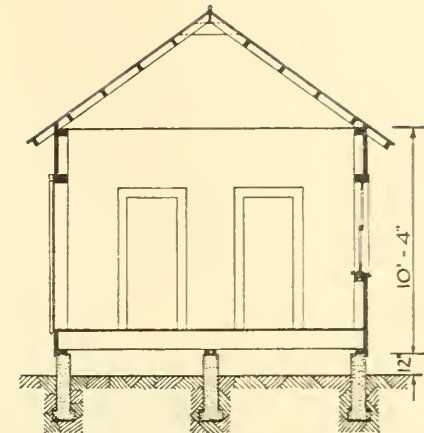
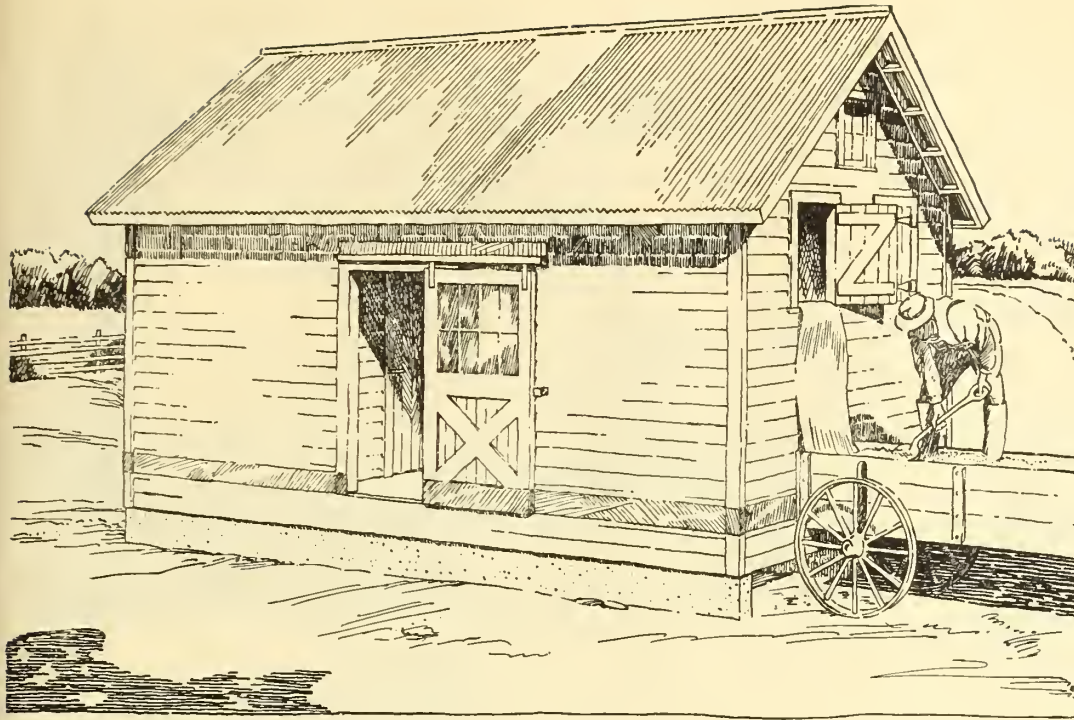


REMOVABLE BINS

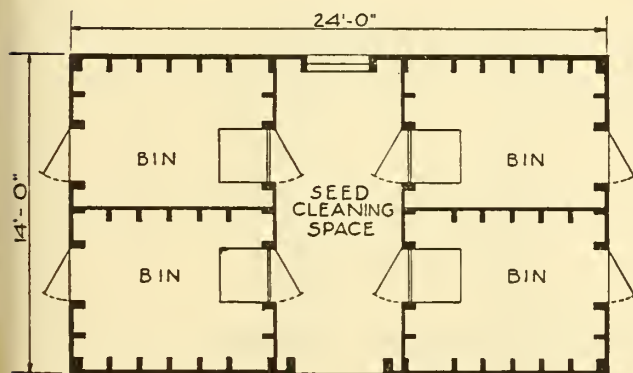
States, frequent observation and fumigation are needed to prevent damage to the grain. Bins intended for other than temporary storage should be carefully rat-proofed. The shed consists of built-up ribs covered with corrugated metal.

Drawing No. 732-5145 (2 sheets)





SECTION



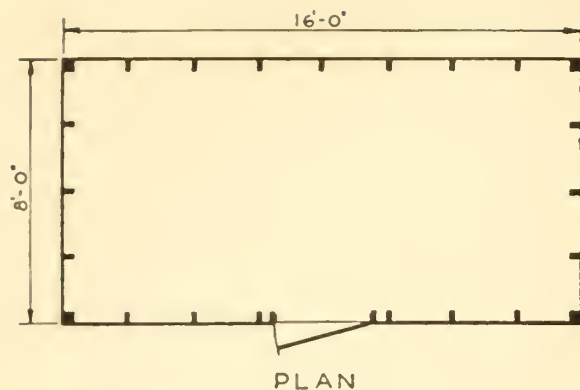
PLAN

This stationary granary is suitable for the farmer who has only a few thousand bushels of grain. The cross walls stiffen the building and provide four bins which may be filled through the outside doors. Each bin will hold about 450 bushels and in emergency

### FOUR-BIN GRANARY

about 780 bushels may be stored in the space intended for cleaning seed. Space for grinding and mixing feed can be provided by increasing the length of the building to widen the alley.

Drawing No. 732-5528 (1 sheet)



## CORNCRIB

A commonly built crib where it is not necessary to fumigate the corn to kill weevils. Capacity 500 bushels of ear corn. Rats are excluded by metal caps on tops of piers. Drawing No. 732-5586 (1 sheet)

5586

## Corncrib

A 7- by 32-foot crib; capacity, 700 bushels of ear corn; similar to drawing No. 5586. (Not illustrated.)

Drawing No. 732-5533 (1 sheet)

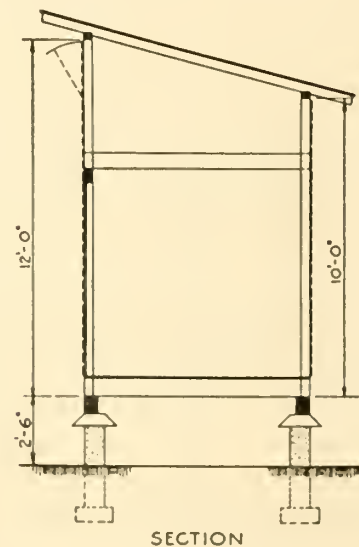
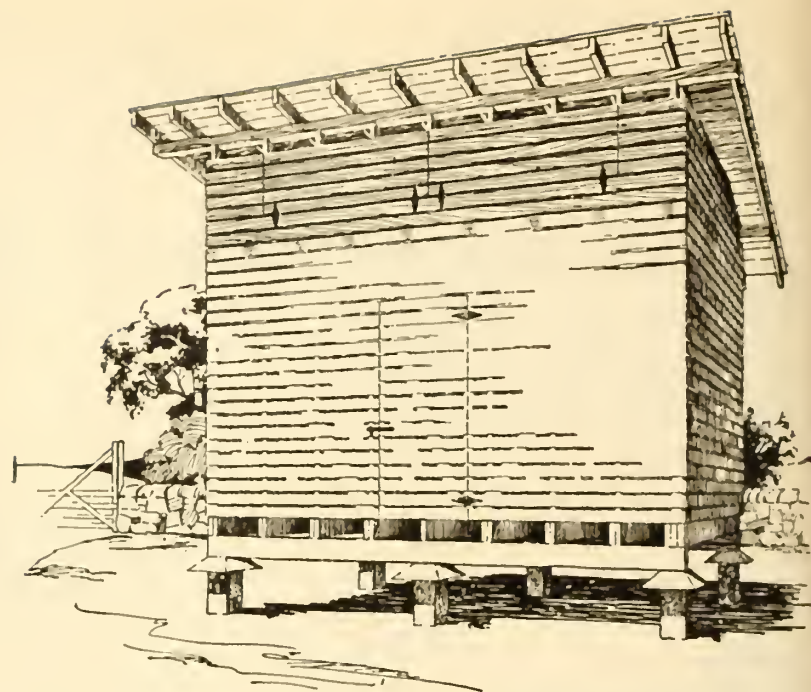
\*5533

## Double Crib

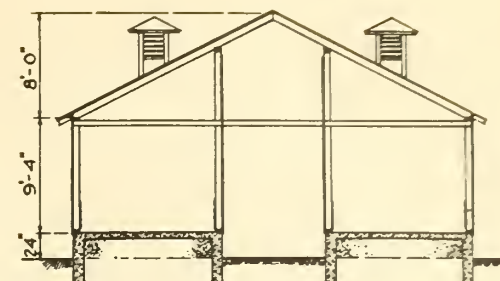
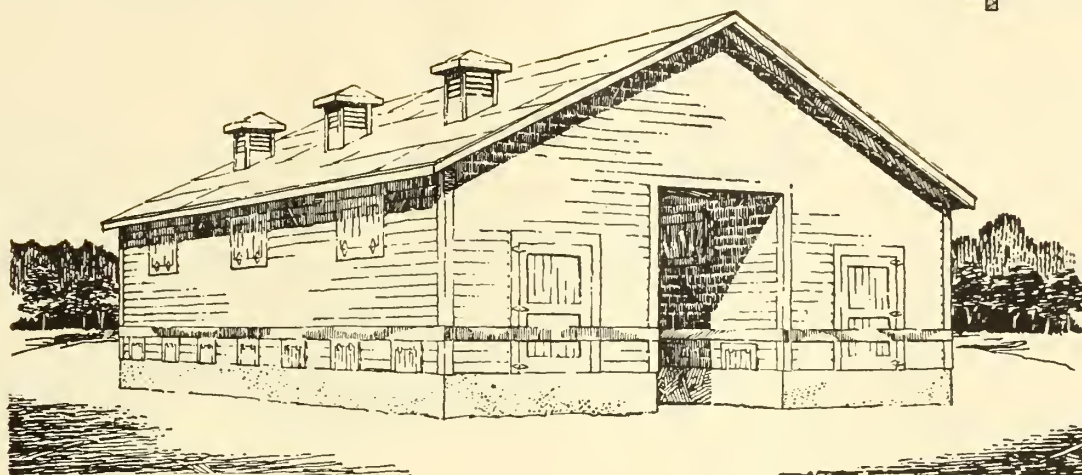
A good type of crib and granary with 12-foot center alley. Capacity, 900 bushels of ear corn on one side and 2,000 bushels of small grain on the other. The crib has slat walls. Both sides could be built alike. (Not illustrated.)

Drawing No. 732-5535 (1 sheet)

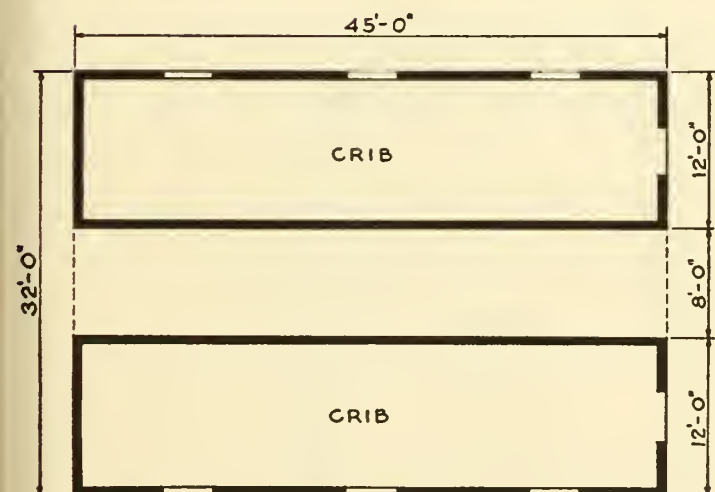
\*5535



SECTION



SECTION



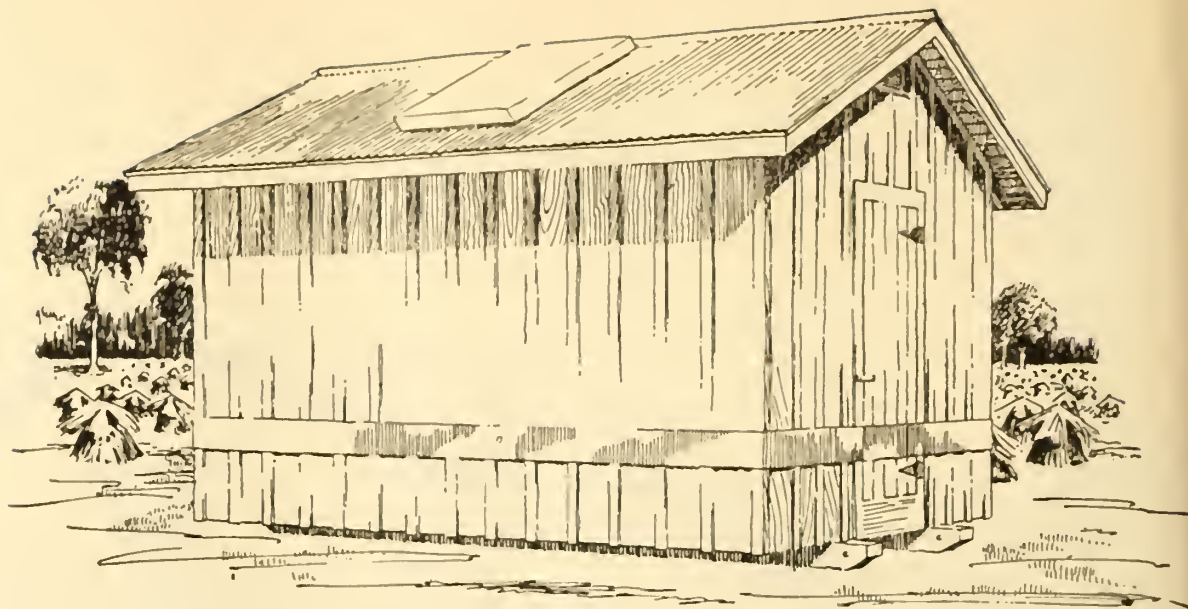
PLAN

## CORNCRIB

This double corncrib is especially well rat-proofed and on account of being tightly sheathed it can be effectively fumigated or otherwise treated for weevils and other insects. Capacity, 3,000 bushels of ear corn.

Drawing No. 732-5587 (1 sheet)





## MOVABLE BIN

Movable bins should be particularly well-braced to prevent rocking. They are very useful equipment in the field, to save long truck hauls during the threshing rush. They can be used for supplemental storage in the feed lot. The hatch in the roof of the bin shown permits easy filling. Size, 10 by 14 feet. Capacity, 660 bushels.

Drawing No. 732-5588 (1 sheet)

**5588**

### Movable Bin

Size, 10 by 10 feet. Capacity, 500 bushels. (Not illustrated.)

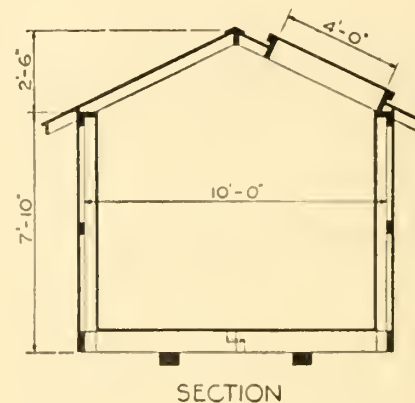
Drawing No. 732-5530 (1 sheet)

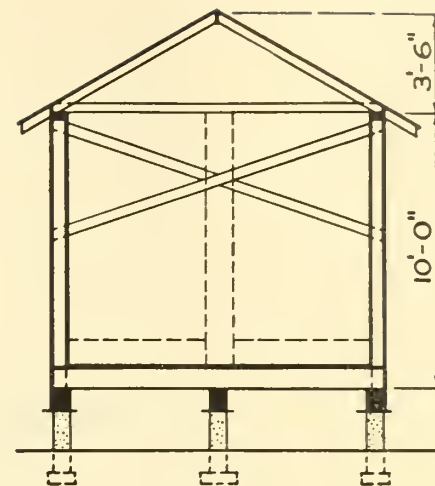
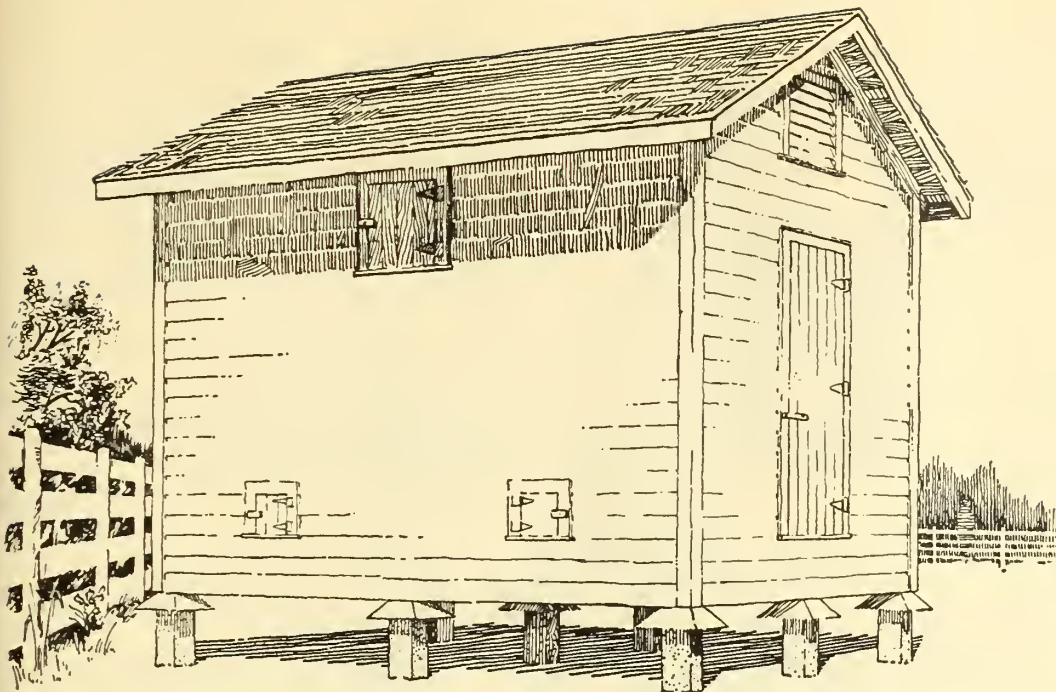
**\*5530**

Size, 12 by 14 feet. Capacity, 1,000 bushels. (Not illustrated.)

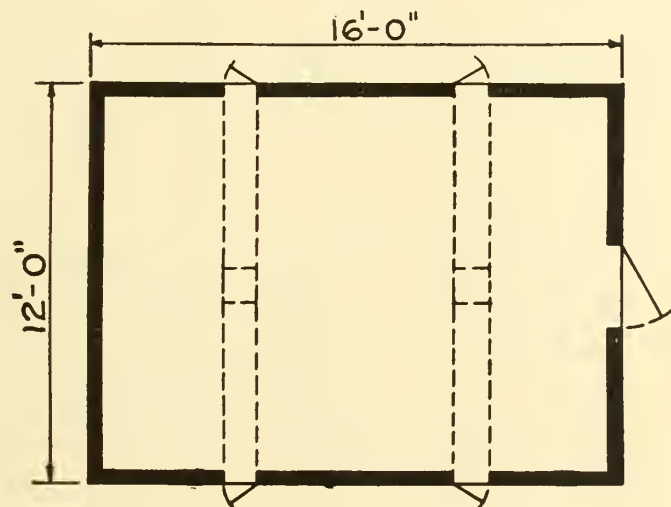
Drawing No. 732-5531 (1 sheet)

**\*5531**





SECTION

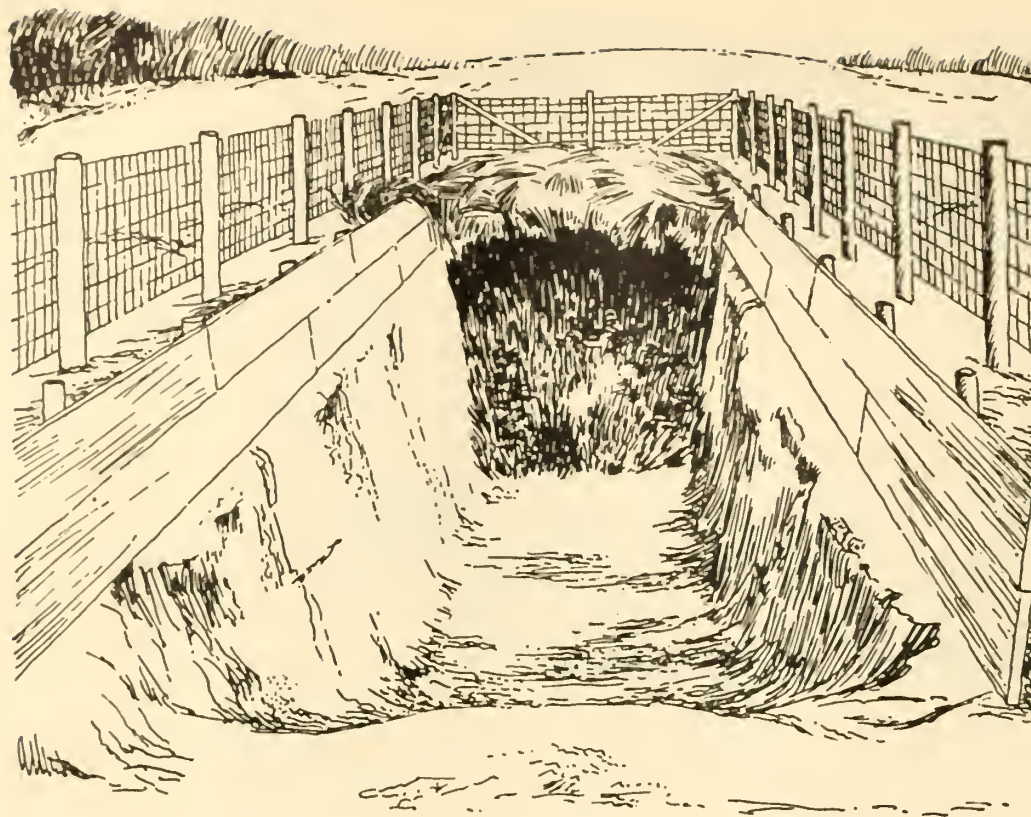


PLAN

## CORNCRIB

A tight-boarded crib that permits fumigation against weevils and has special provision for ventilation. Slatted ducts are placed on the floor with slatted flues extending to the top of the corn, as shown by the dotted lines. When the small doors at floor level are open, air may flow through the ducts and flues, thus circulating through the corn. Capacity, 700 bushels.

Drawing No. 732-5612 (1 sheet)



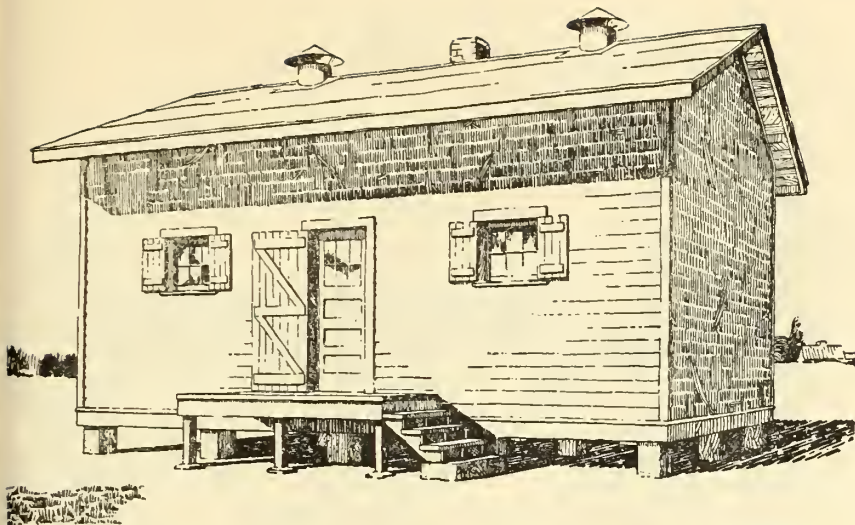
## TRENCH SILO

The trench silo has gained prominence in the last few years on account of its low cost and the ease with which it can be built with farm implements. A trench silo will not blow down or burn, and it can be made of any desired capacity. Also the contents are not likely to freeze. The sides and bottom may be merely the bare earth, or they may be lined with paper, boards, or concrete.

The silo should be located conveniently for feeding, but it should not be in wet, seepy land; therefore, the site should be one that can be drained and protected against catching run-off water. A clayey subsoil or other type that will not cave in is desirable. A tight fence around the site is necessary to keep out animals.

Drawing No. 733-5589 (1 sheet)





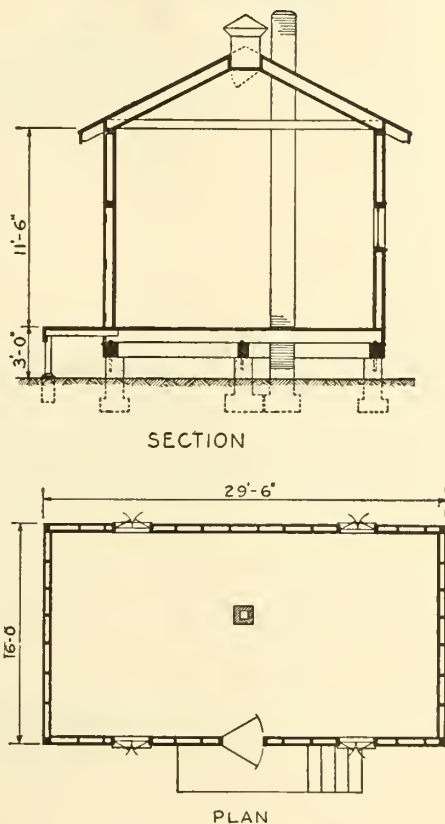
## SWEETPOTATO HOUSE

A substantial sweetpotato storage house is more economical in the long run because it will last longer, require less attention to operate, and will protect the crop better than a poorly constructed one. Sweetpotato houses may be built of masonry or wood. Wooden houses are usually cheaper and easier to keep dry. Masonry houses should be furred and insulated to keep the moisture of the air from condensing upon the cold walls.

These six houses provide essentials for good storage. Floors are the height of a truck bed for convenient unloading and loading. The stud walls and the roof are double sheathed on both sides for insulation. Tight walls are particularly advisable near the seacoast where humidity is high. The walls may be of log construction if well chinked. Heat is provided by stoves which should be shielded to prevent overheating if potatoes are stored nearby; however, these houses can be built with basements for central heating plants. Steam, hot-water, or hot-air systems might be preferred for large commercial houses.

Provision is made for storing the potatoes either in bins or in crates. The house shown has a capacity of 1,000 bushels.

Drawing No. 734-5020 (1 sheet)



Others similar in design but not illustrated:

Capacity 2,500 bushels,  
20 by 40 feet.  
Drawing No. 734-5061 (1 sheet)

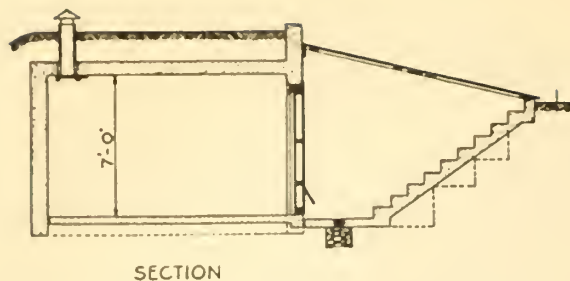
Capacity 5,200 bushels,  
24 by 60 feet.  
Drawing No. 734-5096 (1 sheet)

Capacity 500 bushels,  
12 by 16 feet.  
Drawing No. 734-5179 (1 sheet)

Capacity 770 bushels,  
16 by 17 feet (of logs).  
Drawing No. 734-5592 (1 sheet)

Capacity 15,000 bushels,  
40 by 100 feet.  
Drawing No. 734-5611 (2 sheets)

Suggestions for building basements  
under the above houses where central  
heating plants are used.  
Drawing No. 734-5613 (1 sheet)

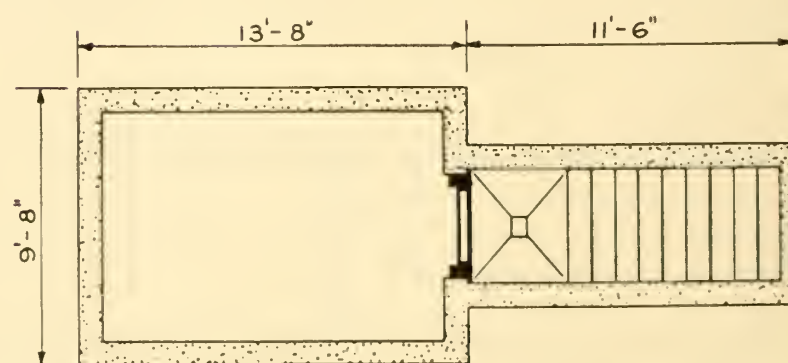
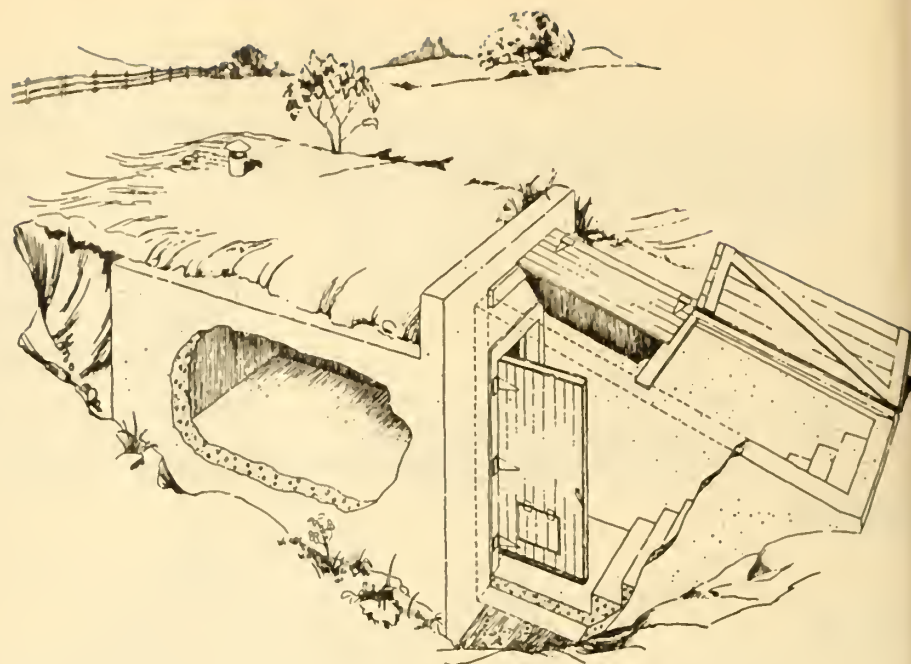


## ROOT CELLAR

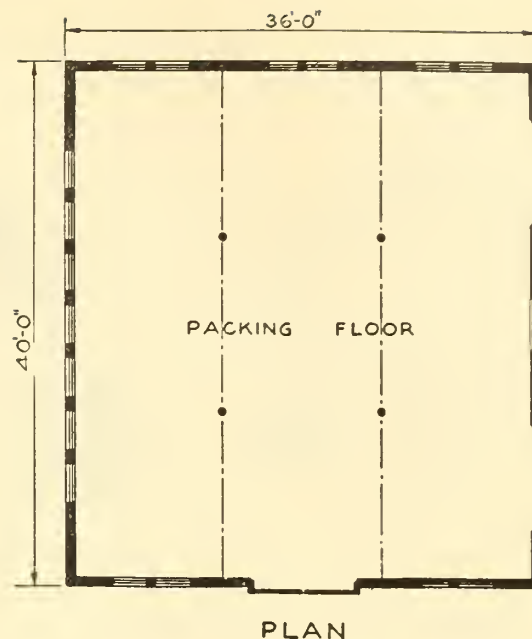
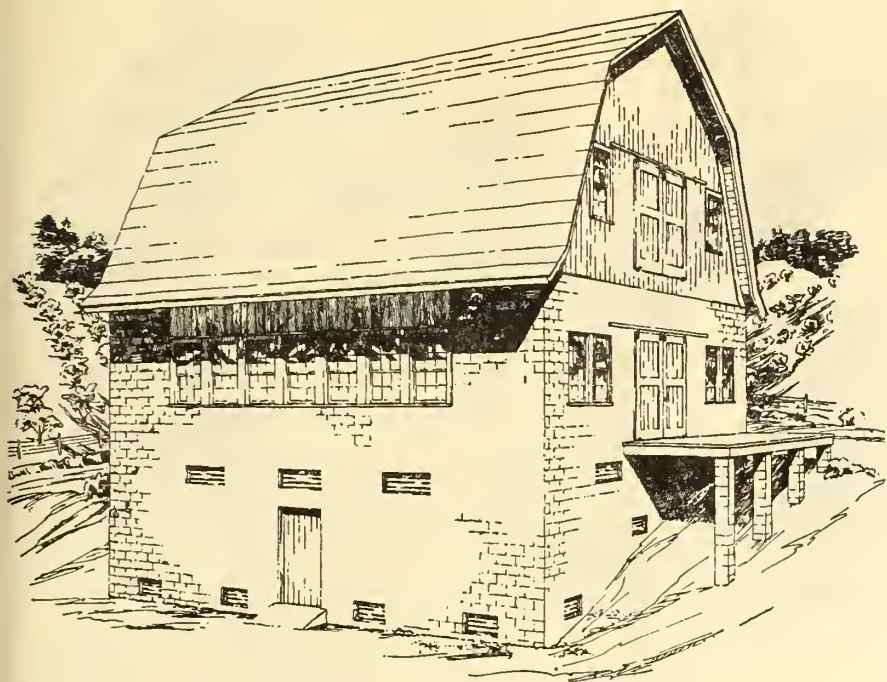
A small outside cellar provides better conditions for the storage of fruits and vegetables than are usually found in house basements. It may be built entirely below ground or partly above with a covering of earth for insulation. Where ground water is high, the outside walls and roof should be waterproofed and under extreme conditions tile-drain lines should be installed around the outside footings. Successful storage in air-cooled cellars depends to a great extent upon careful operation. A free circulation of air should be provided during cool fall nights and the intakes closed during the heat of the day. When the weather becomes cold, insulation pads can be placed in the vents or a lamp hung in the cellar. Drawing provides for cellars 8 by 12, 10 by 12, and 12 by 12 feet, with capacities from 280 to 500 bushels.

Frequently structures of this type are built as refuges from hurricanes, but if used for this purpose a hatchway should be provided as an emergency exit in case the door is blocked by debris.

Drawing No. 734-5176 (1 sheet)



PLAN



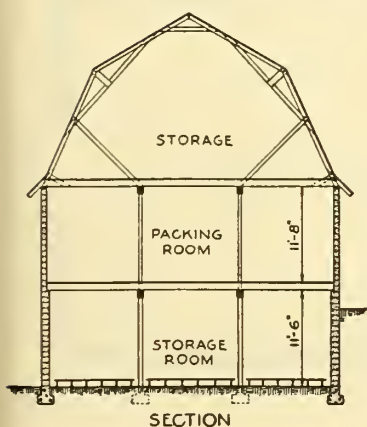
## APPLE PACKING AND STORAGE HOUSE

This is an economical type of air-cooled house which is adapted to mountain sections where nights become cold at apple-picking time and temperatures drop to near-freezing soon after apples are stored. Stone walls are used frequently on account of the abundance of rocks and the durability of the structures. Brick and cinder block are much used. Additional wall insulation may be needed under some conditions.

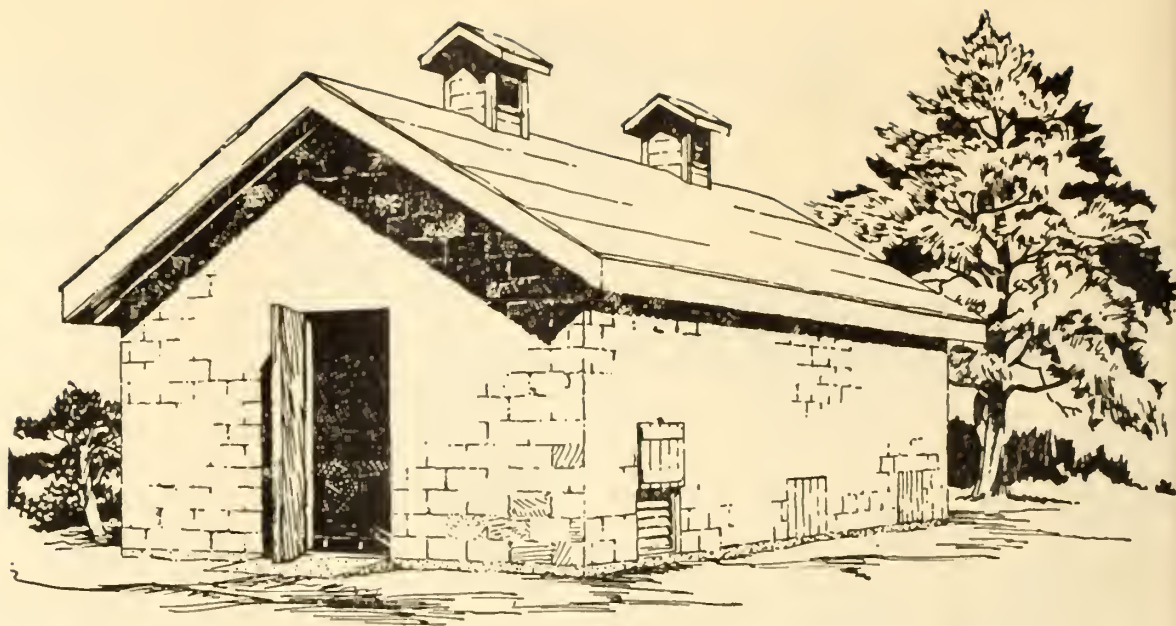
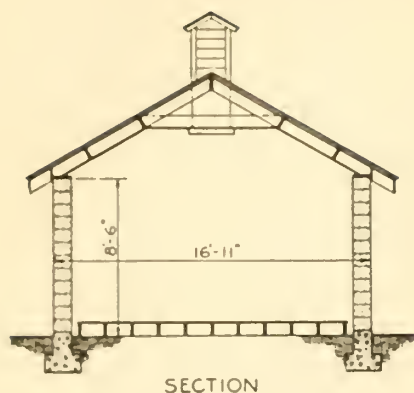
This air-cooled apple-storage house is de-

signed to be built on a hillside so access can be had to both floors. The packing floor is for sorting and packing apples while the basement storage room is equipped with intakes and a raised floor for free circulation of air. The basement will hold 5,400 bushels; the floor above should be well insulated. Large storage space for barrel and crate stock or orchard equipment is provided under the gambrel roof. Suitable for a 50-acre orchard.

Drawing No. 734-5590 (2 sheets)



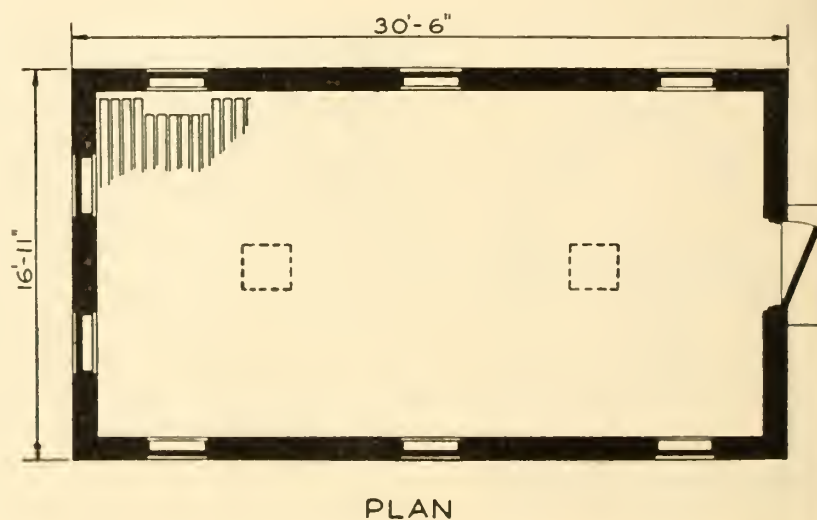


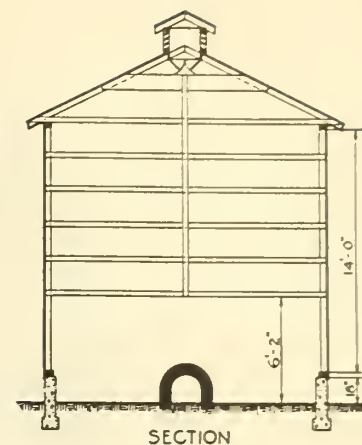
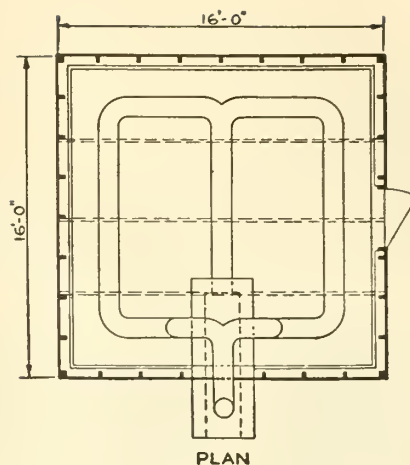
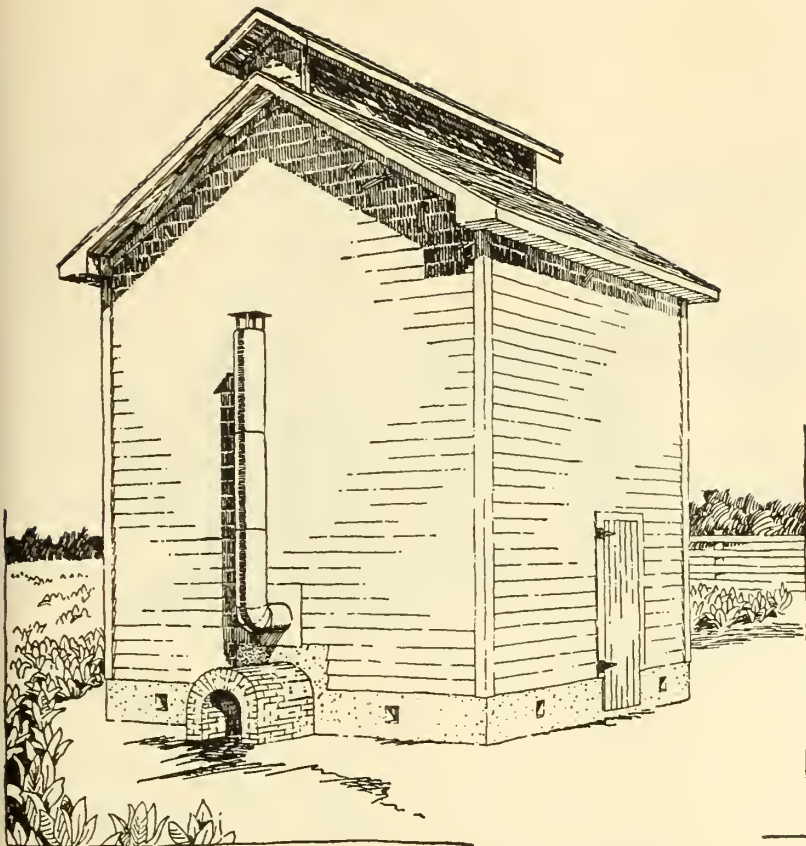


## FRUIT AND VEGETABLE STORAGE

When well constructed and carefully operated, buildings of this type provide satisfactory storage during the cool season for apples, white potatoes, and garden vegetables. If sweet-potatoes are to be stored, there should be a chimney for use during the curing season. In sections where winter temperatures are much below freezing the house may be improved by insulating the walls and ceiling, and providing a chimney so that stoves may be used when needed. Ample intakes and a raised slatted floor facilitate ventilation. Capacity, 1,000 bushels.

Drawing No. 734-5591 (1 sheet)





## TOBACCO BARN

ber from the foundation to the top of the storage wall or first row of tier poles. The sheathing should fit tight at the foundation. The top openings between the studs and the outer and inner walls should be covered in order to prevent circulation of air in the space between the inner and outer linings.

The walls of log barns do not need to be sealed as do stud walls. They are adapted to storage of sweetpotatoes by removing the lower tier poles and putting in supports to keep the lower layer of crates above the floor and provide better circulation of air.

Drawing No. 735-5594 (1 sheet)

Flue-cured tobacco barns in the South are built of logs or sawed lumber. By firing from the outside the hazards of conflagration are lessened. Often, a lean-to shed is built on the furnace side to protect fuel and operators from bad weather.

If the barn is used for storing sweetpotatoes, the inside of the board barn should be sealed over the studding with matched lum-

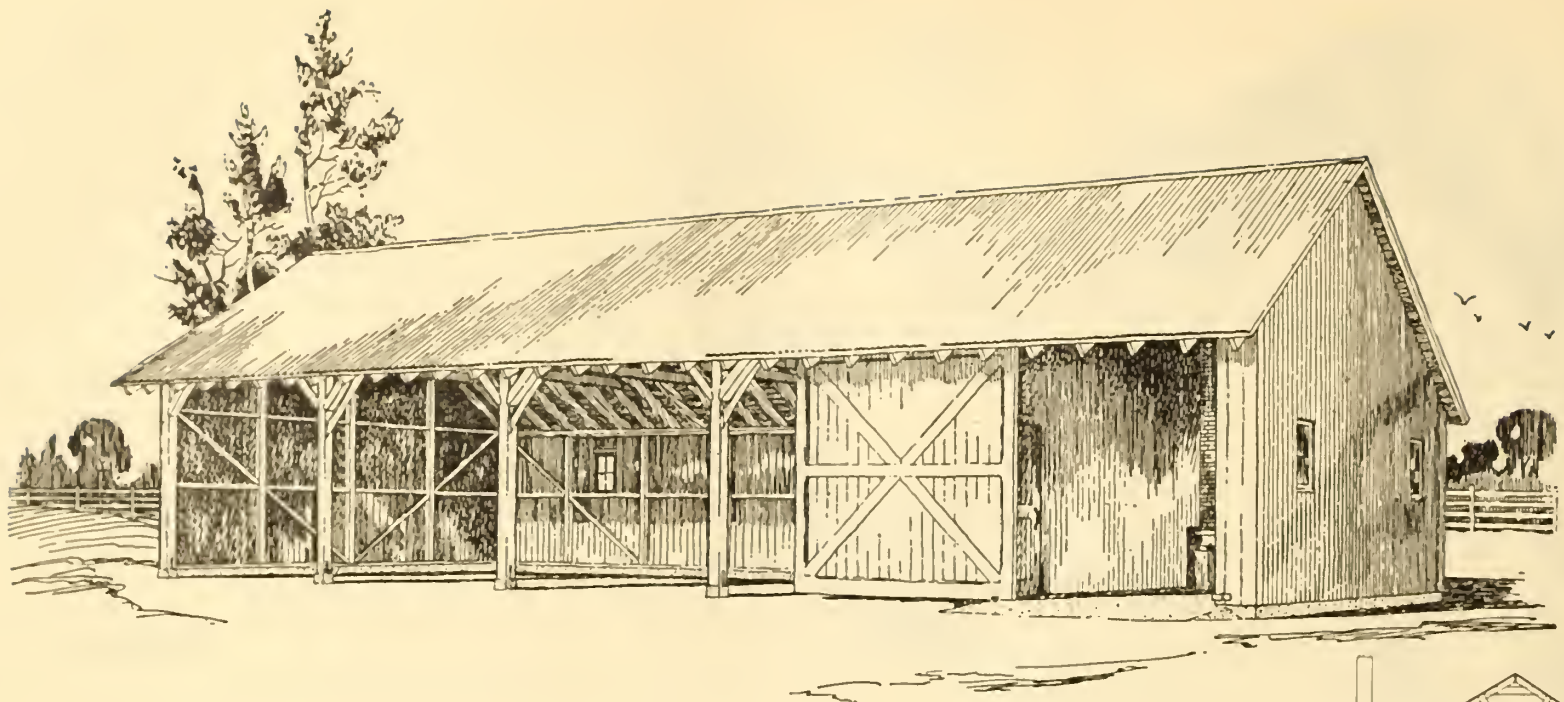
## Tobacco Barn

A barn similar to the above of log construction 20 by 20 feet. This and the above barns may be built either with logs or sawed lumber. (Not illustrated.)

Drawing No. 735-5593 (1 sheet)

\*5593

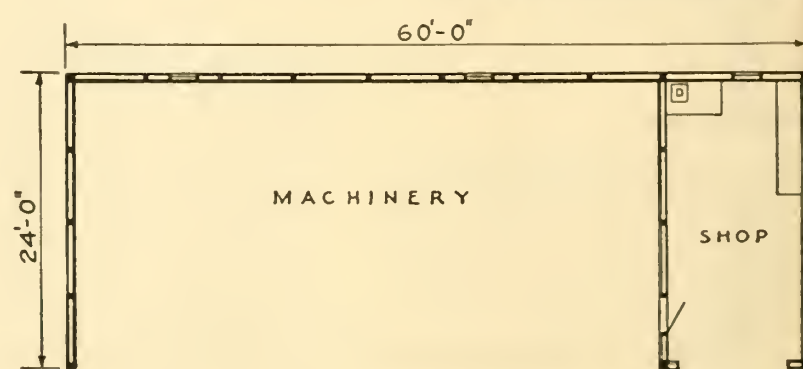
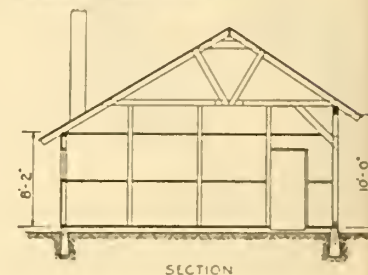




## IMPLEMENT SHED AND SHOP

This shed may be used for all the common farm implements except the thresher or harvester. The front posts are set on concrete piers and may be spaced 8 to 12 feet apart. The post-and-girt frame permits the use of vertical boards or corrugated metal for a covering. The repair shop at one end can be readily widened if desired, while the length of the shed may be varied to provide needed space.

Drawing No. 741-5148 (1 sheet)



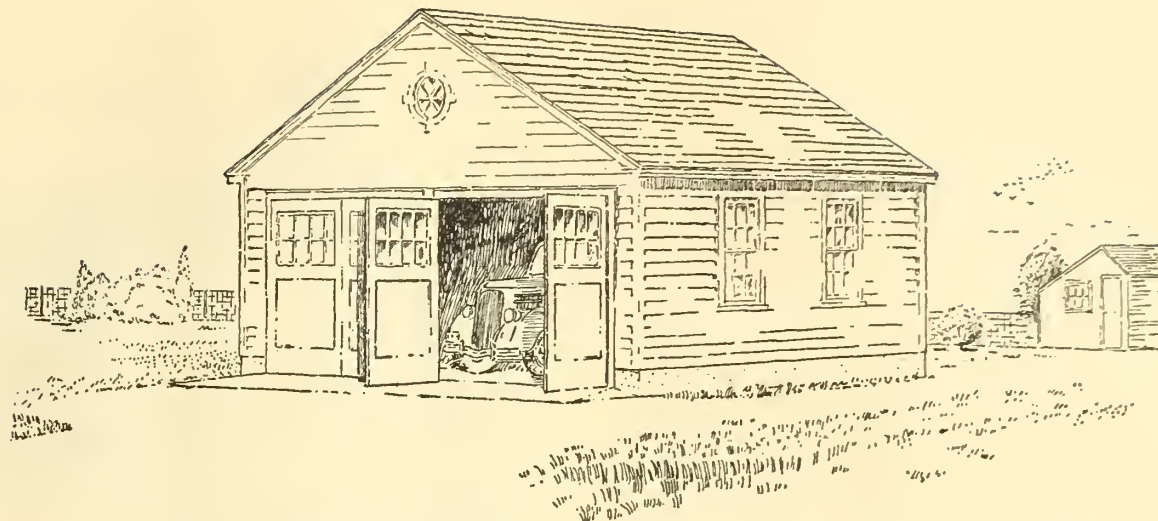
PLAN



## TWO-CAR GARAGE →

Because of the method of framing, this 20-foot-wide garage can be built for cars of any length; 20 feet is long enough for the average car. There are no interior posts. A work bench is desirable for minor repairs. The building may be of concrete blocks or the stud walls covered with corrugated metal.

Drawing No. 741-5149 (1 sheet)

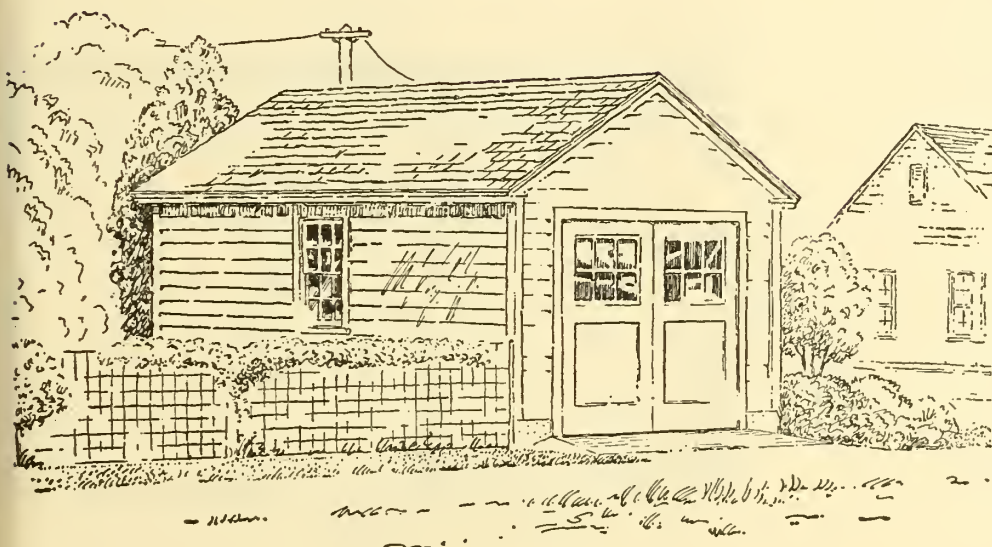


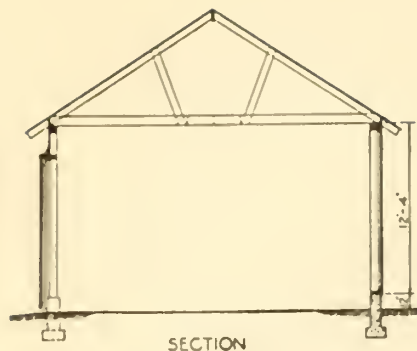
5149

## ← ONE-CAR GARAGE

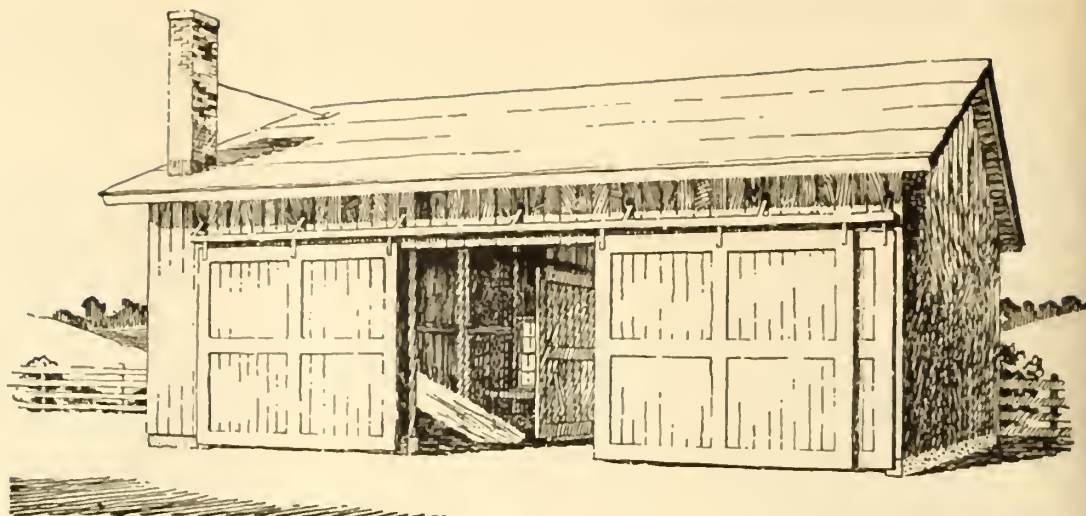
This garage is 12 by 20 feet. There is room for a work bench along one side. Doors may be made to run along the inside walls by providing curved tracks available from most hardware dealers. A well-packed gravel floor would help keep down first cost. A concrete floor could be added later.

Drawing No. 741-5150 (1 sheet)





SECTION



## IMPLEMENT SHED AND SHOP

The wide doors permit running implements into the shop either from the outside or from the shed. The structure would be useful where a shop or garage is needed close to the dwelling.

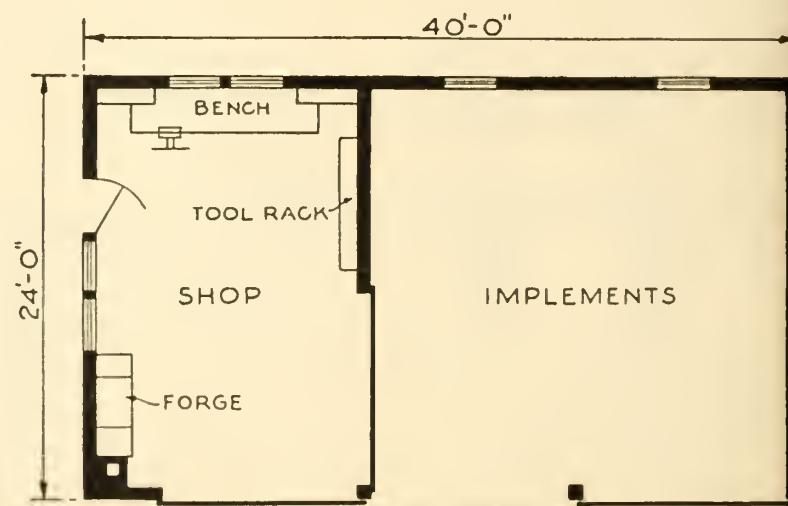
Drawing No. 741-5595 (1 sheet)

5595

### Implement Shed, Three-Bay Unit

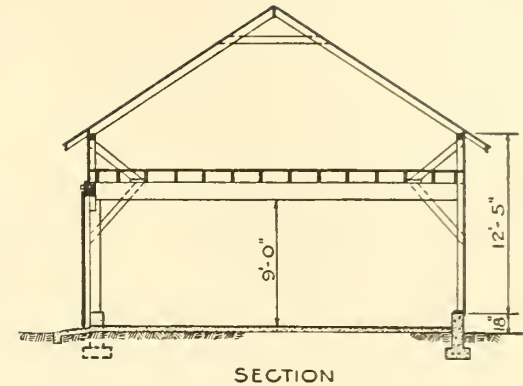
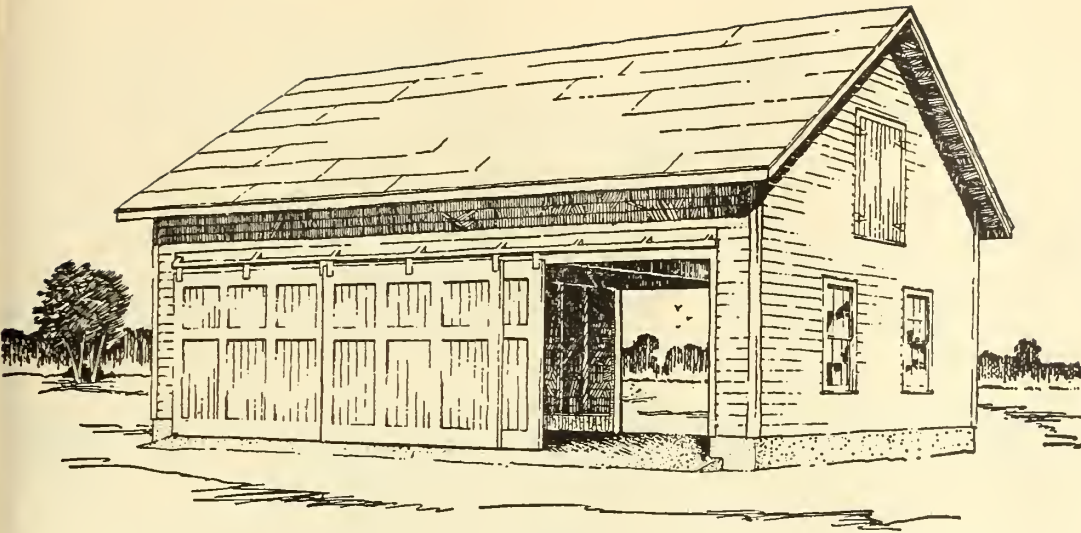
This implement shed, 24 feet deep and 34 feet long, was designed to utilize space above low implements. Two platforms are provided 5 feet above ground in the end bays and one platform, 12 by 20 feet, is built 8 feet above ground in the middle bay extending halfway over the end bays. With this arrangement small implements can be handed from lowest platform to the higher ones. (Not illustrated.)

Drawing No. 741-5562 (2 sheets)

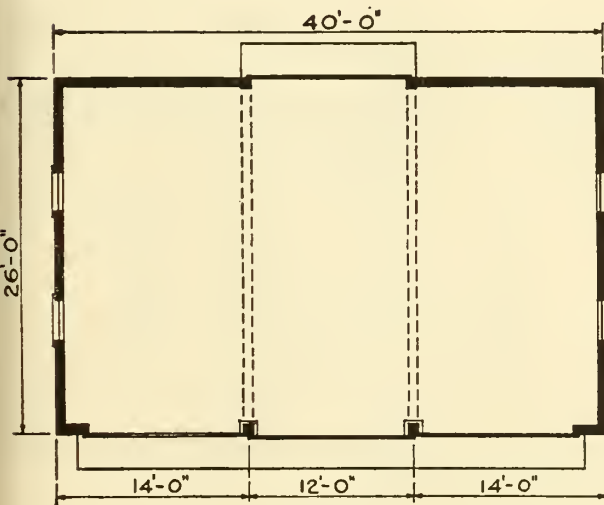


PLAN

\*5562



SECTION



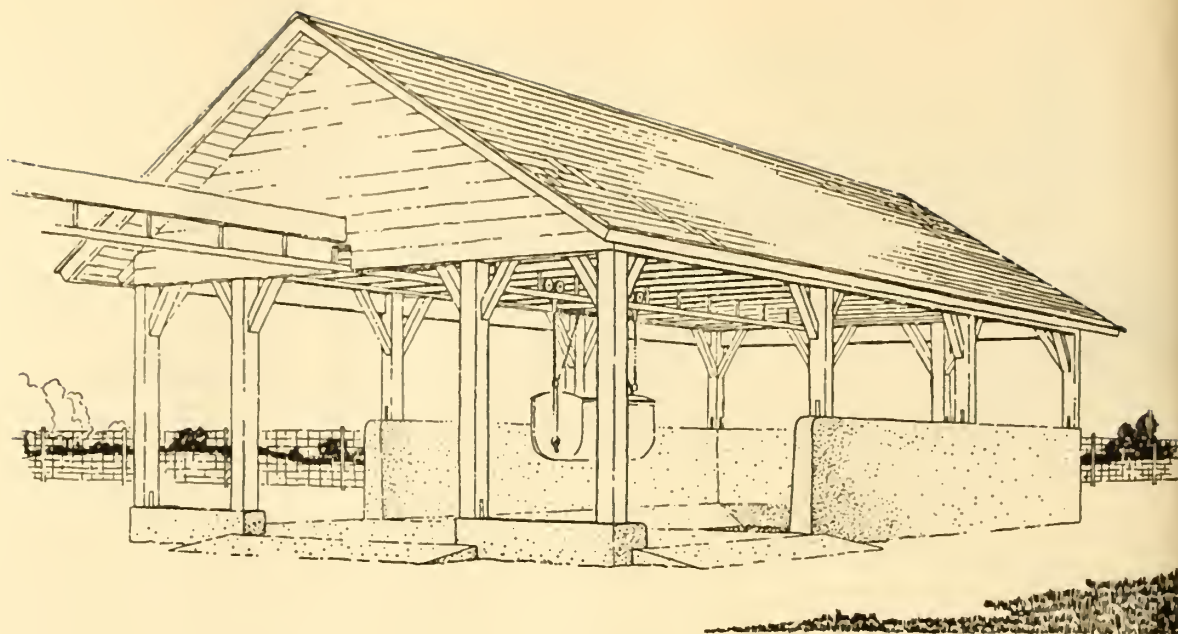
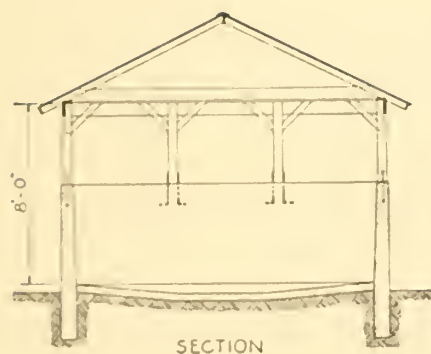
PLAN

## IMPLEMENT SHED AND LOFT

The special features of this building are the unobstructed ground floor, the continuous front doors, and a loft. These features make the building adaptable for other purposes than storage of implements. The mow is intended for the storage of lightweight materials such as crates, etc., which are often in the way or improperly protected in buildings used for other purposes.

Drawing No. 741-5596 (1 sheet)





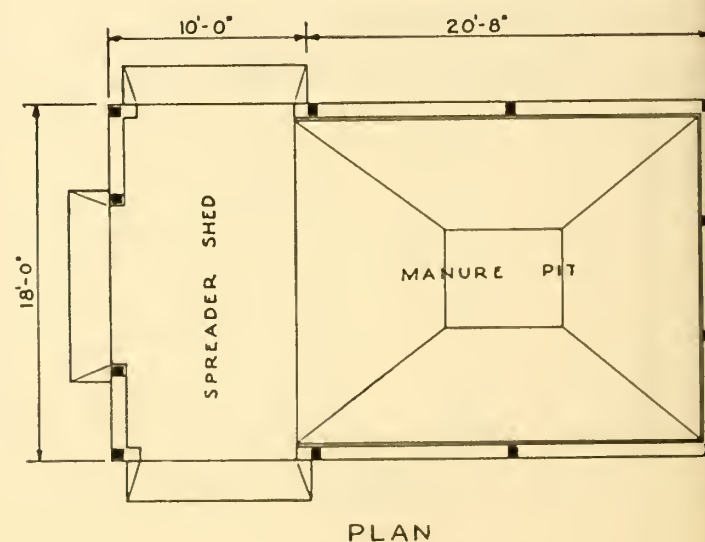
## MANURE PIT

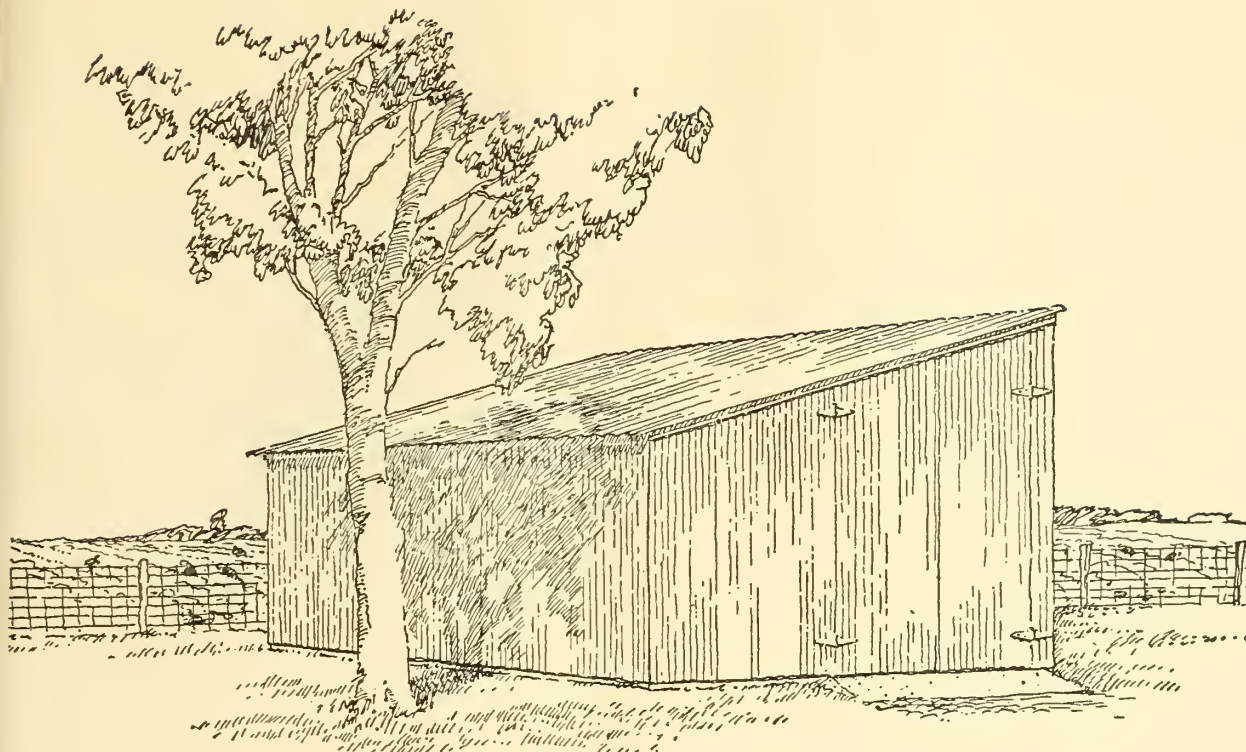
Where not practical to haul manure direct to the fields a pit is desirable to prevent the leaching loss to which manure is subjected when piled in the open. The dimensions show a pit that will hold the manure for a herd of 60 cows for 2 weeks. The spreader may be kept in the covered drive out of the weather.

Local and State ordinances

should be consulted in determining the location of the pit with respect to the milk house and barn. Some ordinances require the use of screens over all manure-pit openings. Only copper or bronze should be used on account of the corrosive action of the fumes on iron.

Drawing No. 743-5151 (1 sheet)



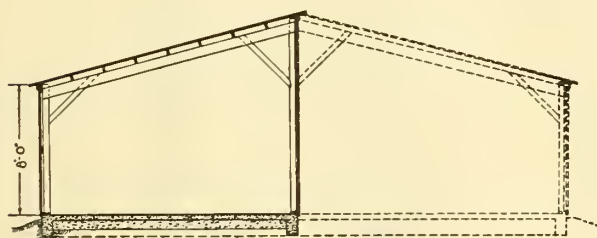


## UTILITY SHED

and floor and sawed framing should be used.

Drawing No. 745-5501 (1 sheet)

**5501**



SECTION

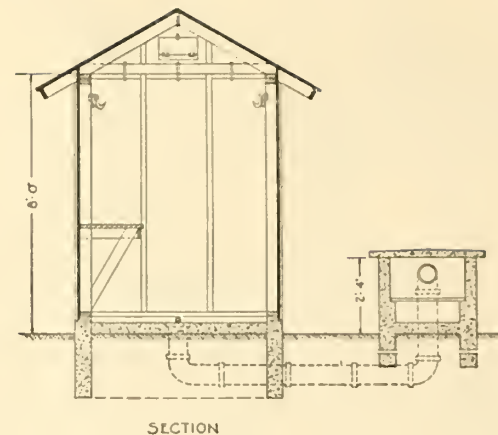
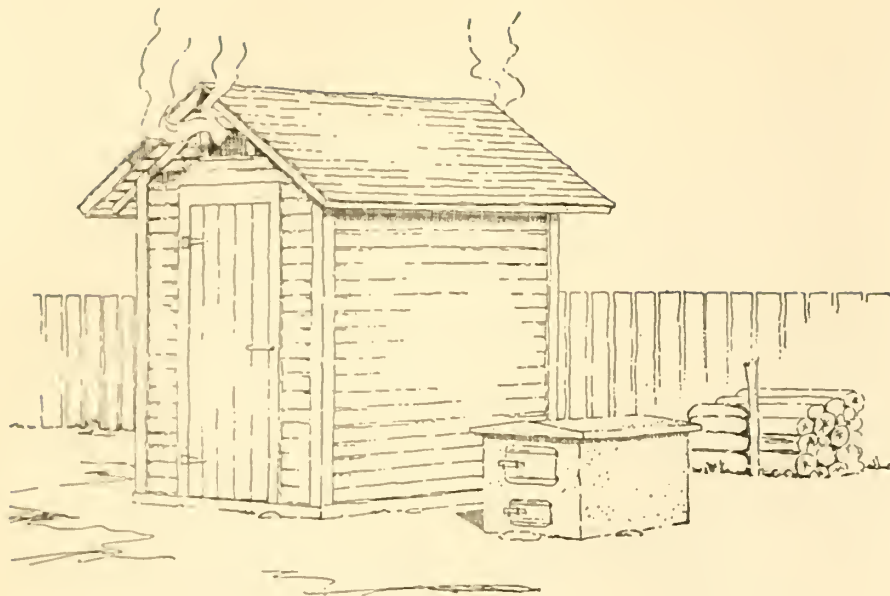
This building may be used for many purposes, such as the storage of a few bales of cotton, a shop, storage for small implements, etc. It may be started as a 16- by 16-foot shed-roof building and later enlarged to a 16- by 32-foot gable-roof building. Three methods of construction are suggested. The cheapest is to use creosoted poles set in the ground for supports and a cinder or gravel floor. For permanence the concrete foundation

## Cotton Shed

A lightly framed shed that can be built 14, 27, 41, or 54 feet wide and any length desired, in 10-foot units. Floor 4 feet above ground for convenience in loading freight cars or trucks. Roof and walls covered with corrugated metal. Concrete piers. Posts spaced 13 feet 7 inches apart in 10-foot rows. (Not illustrated.)

Drawing No. 745-5555 (1 sheet)

**\*5555**



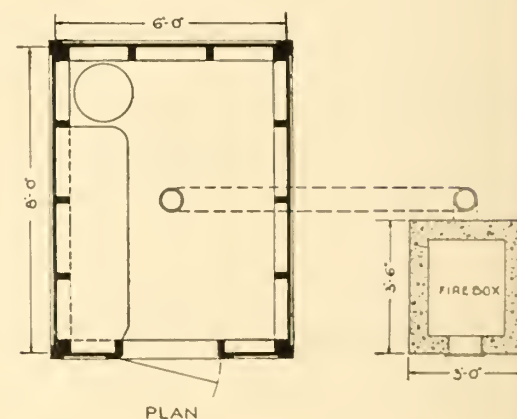
## SMOKEHOUSE

With an outside firebox, frame construction may be used in this smokehouse with little fire hazard. A pipe leads the smoke from the firebox to an opening in the center of the floor, and ventilating flaps in each gable may be opened or closed depending upon the direction of the wind. The meat is hung from beams spaced so the pieces will not touch. Tight construction is necessary since temperature is controlled by the gable vents. Sometimes it is necessary to kindle a

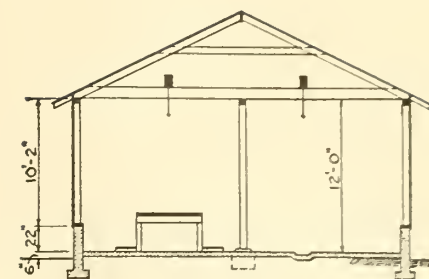
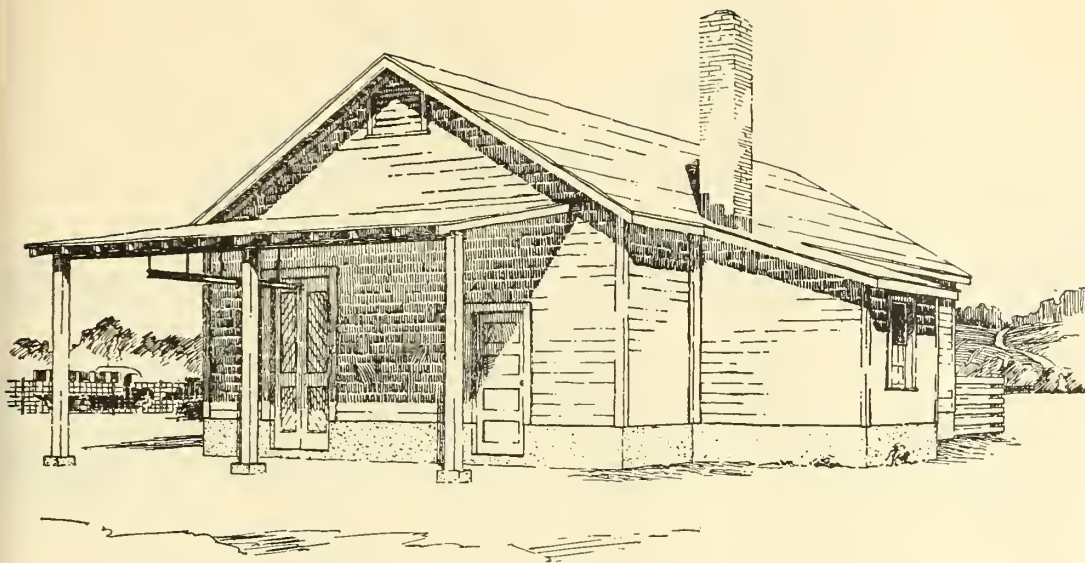
paper fire in the building to start the draft so that smoke will be drawn through the pipe.

The outside stove will have a wider use if a hole large enough for a big kettle is left in the top slab, or if a metal vat is used in place of the slab. If used for some other purpose than smoking meat, an auxiliary smoke pipe may be added and a damper provided to keep smoke from entering the house.

Drawing No. 751-5029 (1 sheet)







SECTION

## SLAUGHTERHOUSE

Regulations for sanitary control differ according to conditions of operations and before building a community slaughterhouse it is advisable to become familiar with them. This structure is designed primarily for limited local use by groups of farmers but will not meet the requirements for Federal inspection. The overhead tracks are located conveniently for successive operations from receipt of the animals to delivery of the carcass to the cooling room. The working drawings show sanitary drains and other details of construction.

Drawing No. 751-5597 (2 sheets)

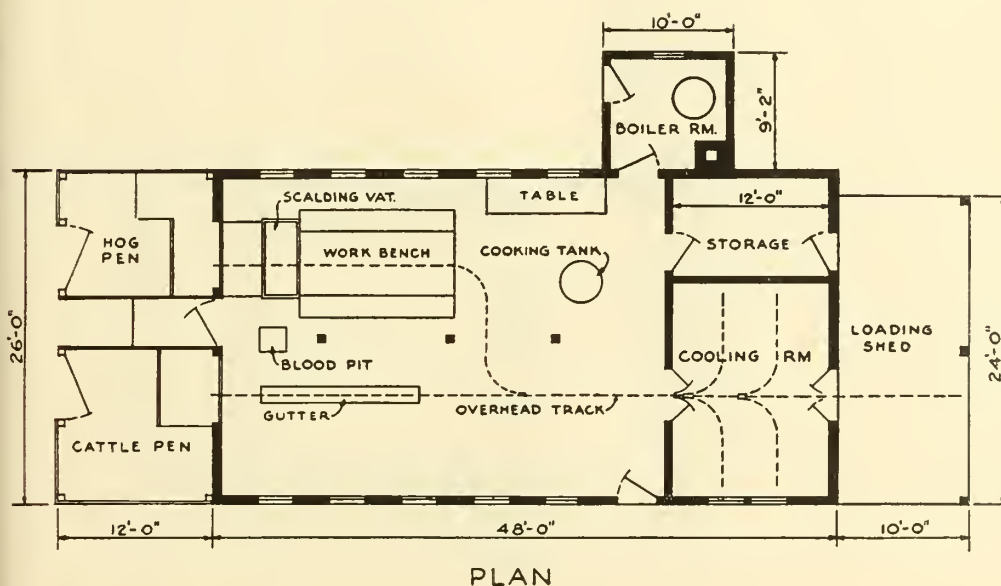
5597

## Slaughterhouse

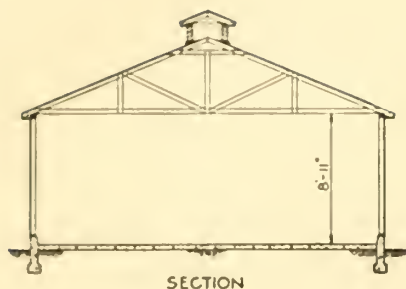
31 by 22 feet slaughterhouse suitable for dressing 8 to 11 cattle, or 32 to 48 hogs daily. It is not suitable for rapid commercial slaughtering. If interstate shipment of meat is contemplated, approval of plans must be made by the Meat Inspection Division of the United States Department of Agriculture. (Not illustrated.)

Drawing No. 751-5615 (3 sheets)

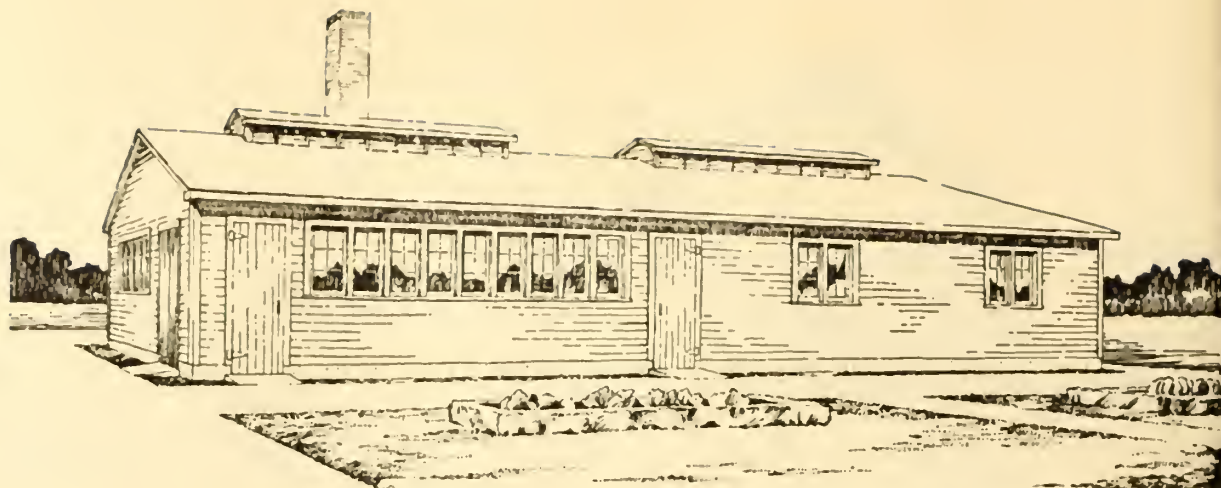
\*5615



PLAN



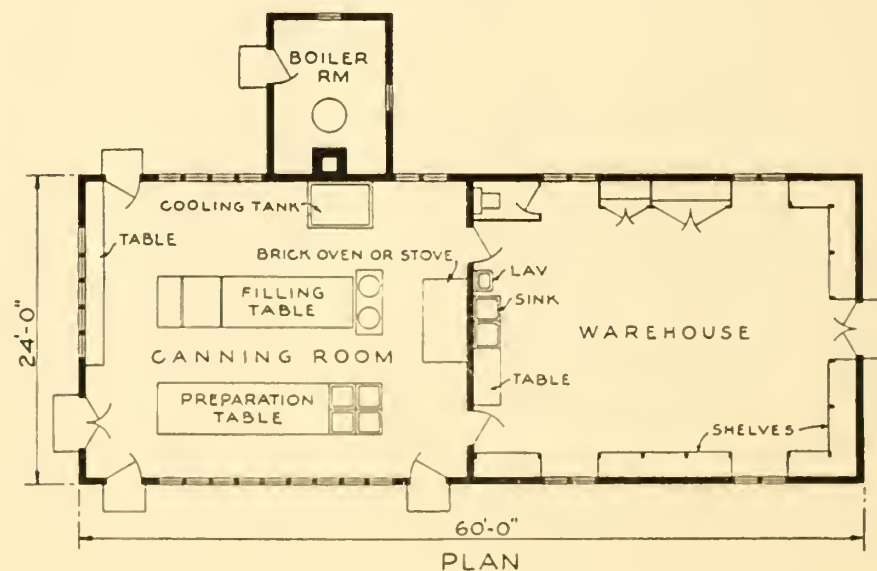
SECTION

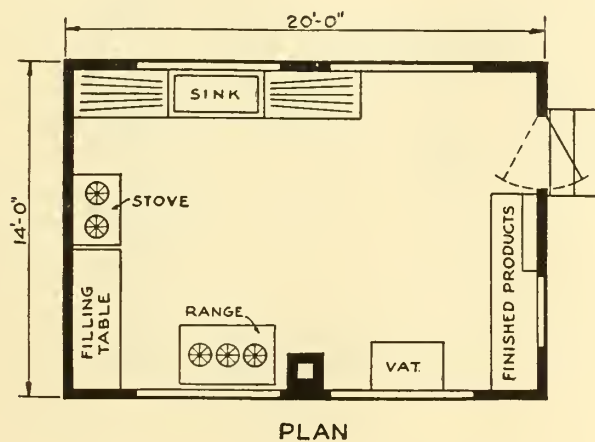
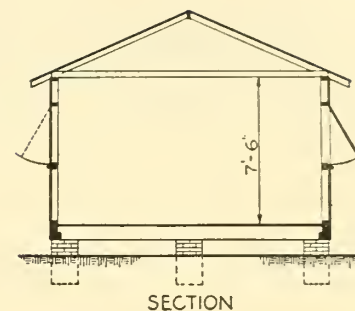
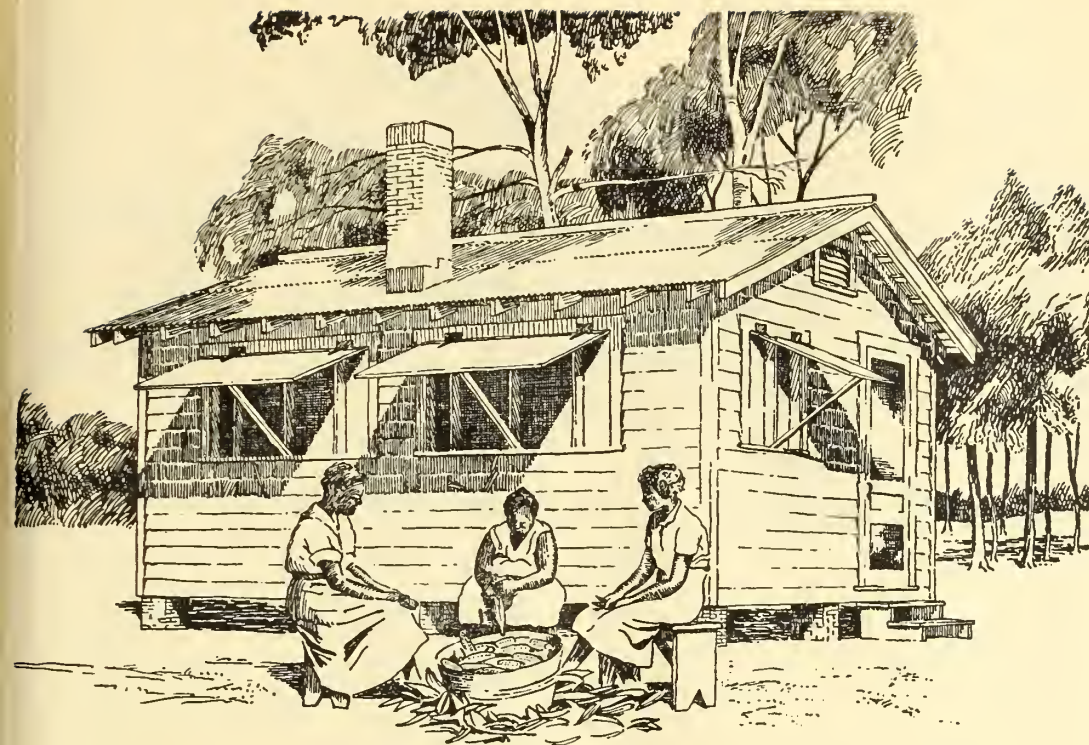


## CANNING PLANT

These plants have been developed as the result of experience in the construction and operation of community canning plants. The principles for laying out the floor space for ease in operation will be helpful in converting existing buildings into canneries. The building should be of such a type that it may be kept clean, provide sufficient space for the canning room, and if possible, have a ventilated storage room. The dimensions need not conform exactly to the ones suggested because the general plan may be adapted to almost any size building.

Drawing No. 753 5599 (5 sheets)



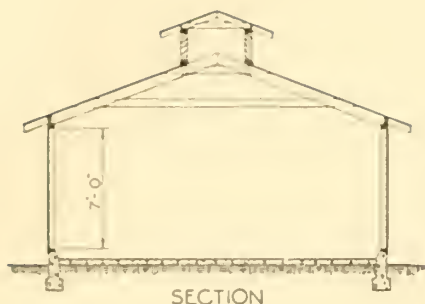


### SMALL CANNING PLANT

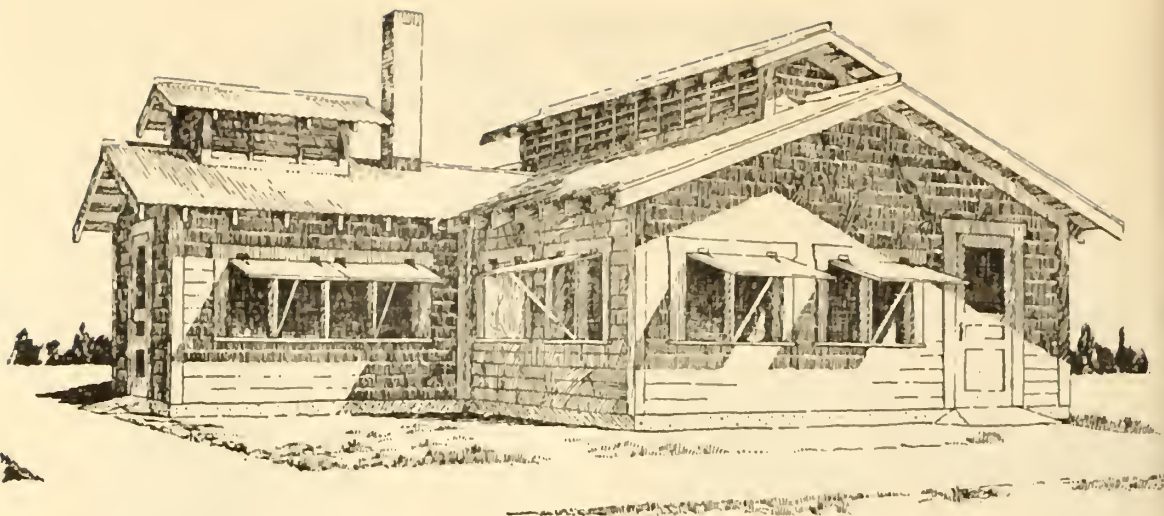
Where much canning is done at home a small plant similar to this one, if built near the house, is convenient, At the same time the mess and heat will be kept out of the farm-house kitchen and thus not interfere with the preparation of meals and other work.

Drawing No. 753-5600 (1 sheet)





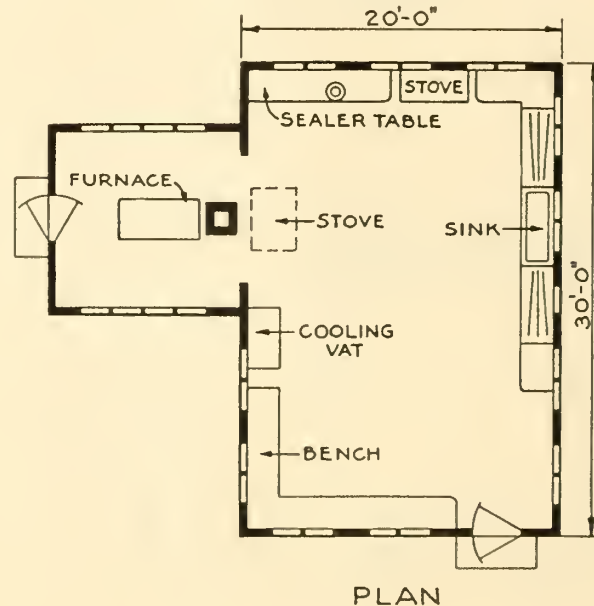
SECTION



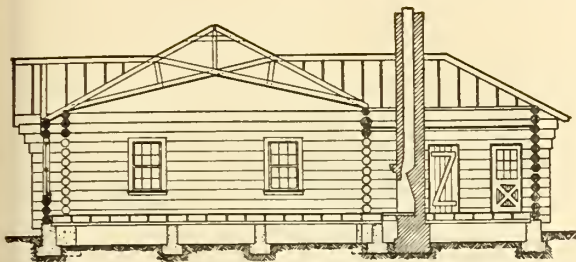
## CANNING PLANT

This is a smaller lay-out than the plant shown on drawing No. 5599, page 102. The large ventilators in the roof and large window openings provide ample movement of air to reduce the room temperature by removing steam. The wooden shutters can be lifted to serve as awnings when the building is in use.

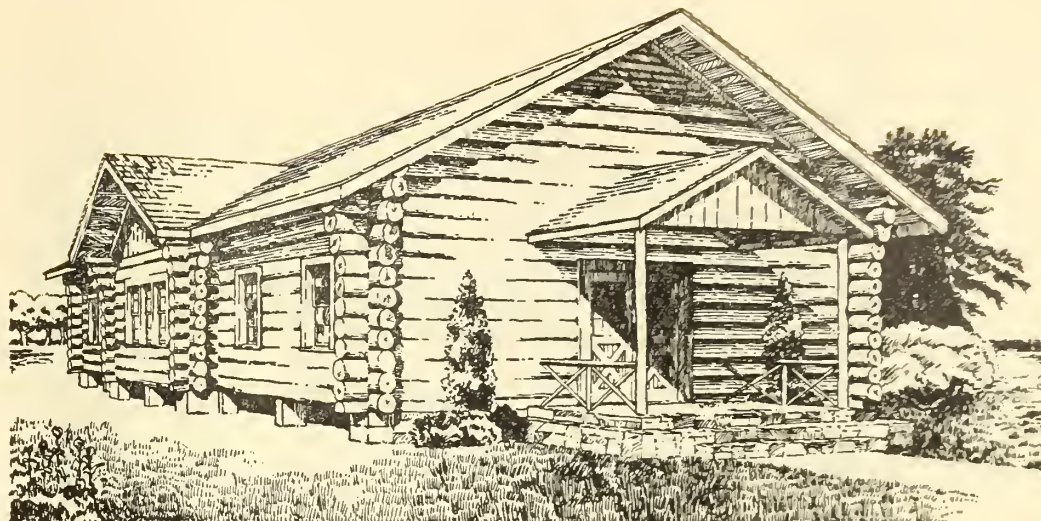
Drawing No. 754-5601 (1 sheet)



PLAN



SECTION



## COMMUNITY CENTER

The use of logs is very appropriate to a rural setting. The large assembly hall is adaptable for showing motion pictures, dancing, dining, and presenting plays. A stage built at the far end would be convenient to the dressing room. Seating capacity, about 250 persons. The kitchen and fireplace are well located as are the cloak rooms at the entrance.

Drawing No. 791-5602 (2 sheets)

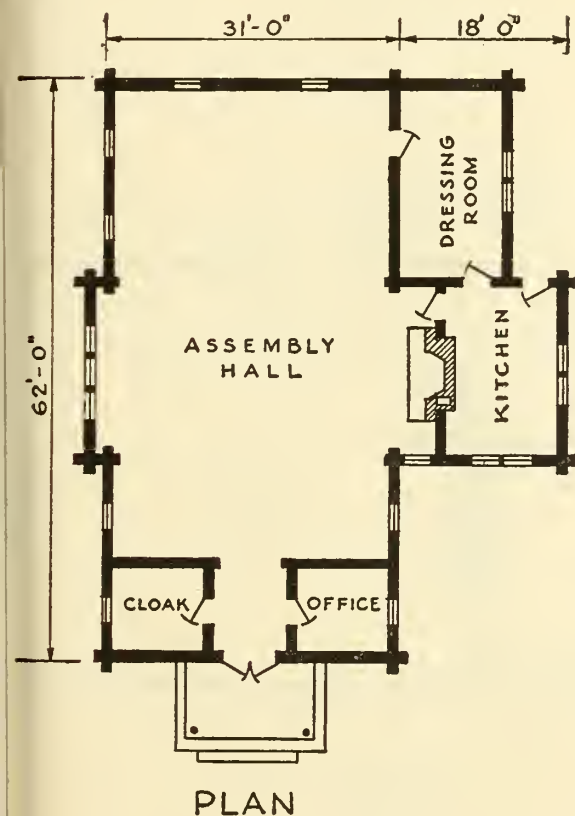
5602

## Playground Lay-outs

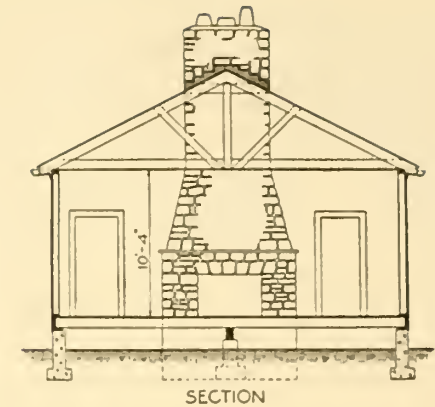
Athletic fields are often needed in connection with club and fair activities. The drawing gives the dimensions and boundary lines for tennis, basketball, croquet, and horseshoe courts, a football field, and a baseball diamond. (Not illustrated.)

Drawing No. 791-5183 (1 sheet)

\*5183



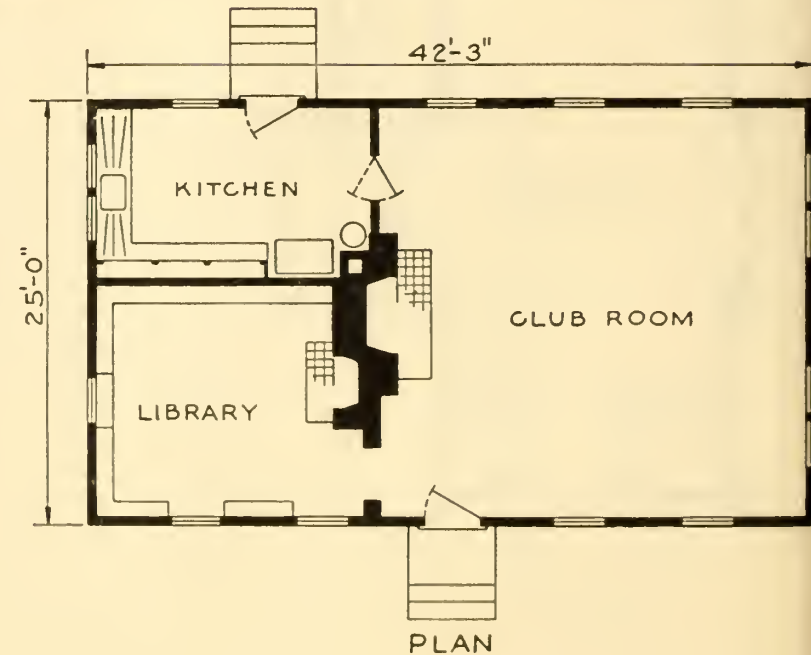
PLAN



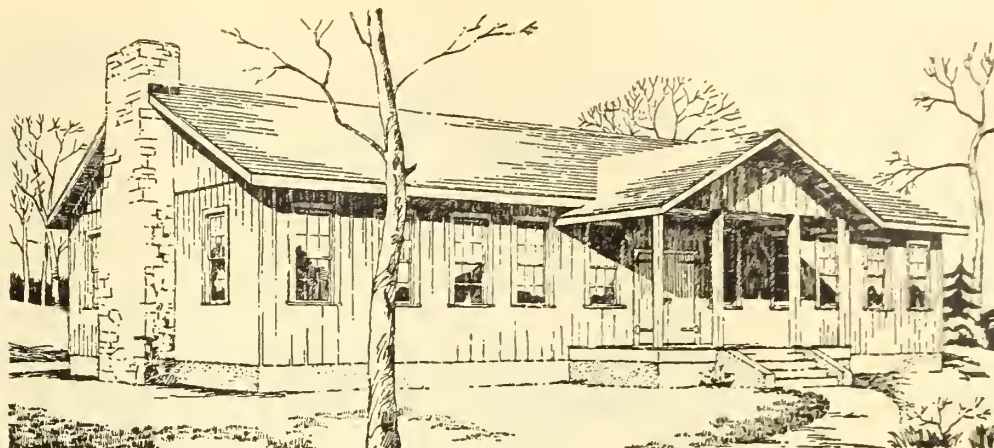
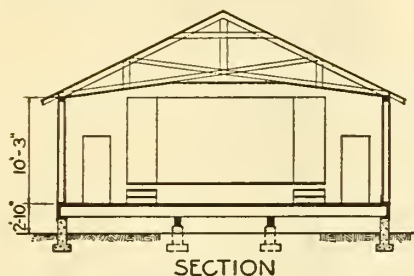
## CLUB BUILDING

This building is especially adaptable to the activities of a farm organization. Scouts, or 4-H Clubs, would find it convenient. It may be built of logs, stone, or other native materials, or of cinder-concrete blocks or similar commercial products.

Drawing No. 791-5603 (1 sheet)





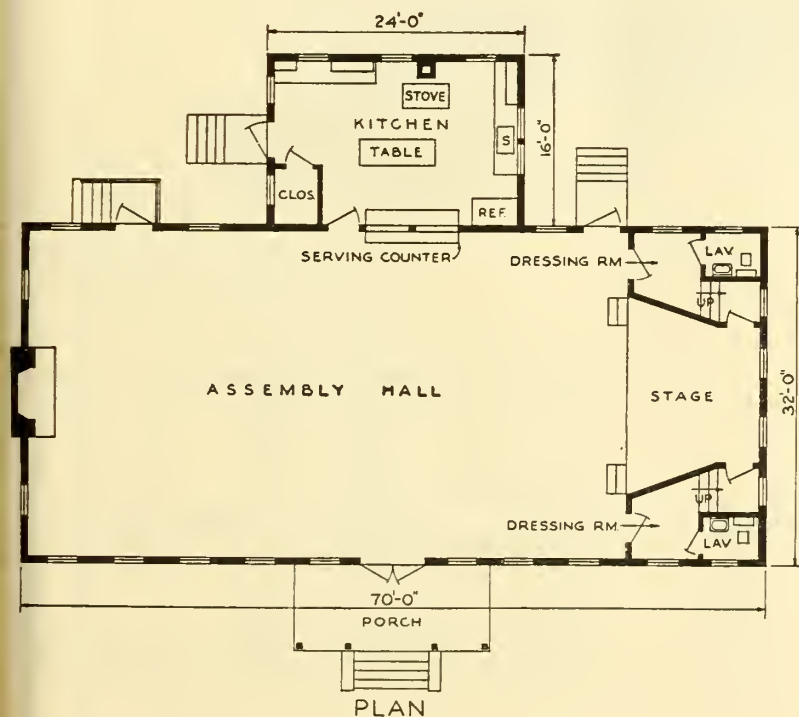


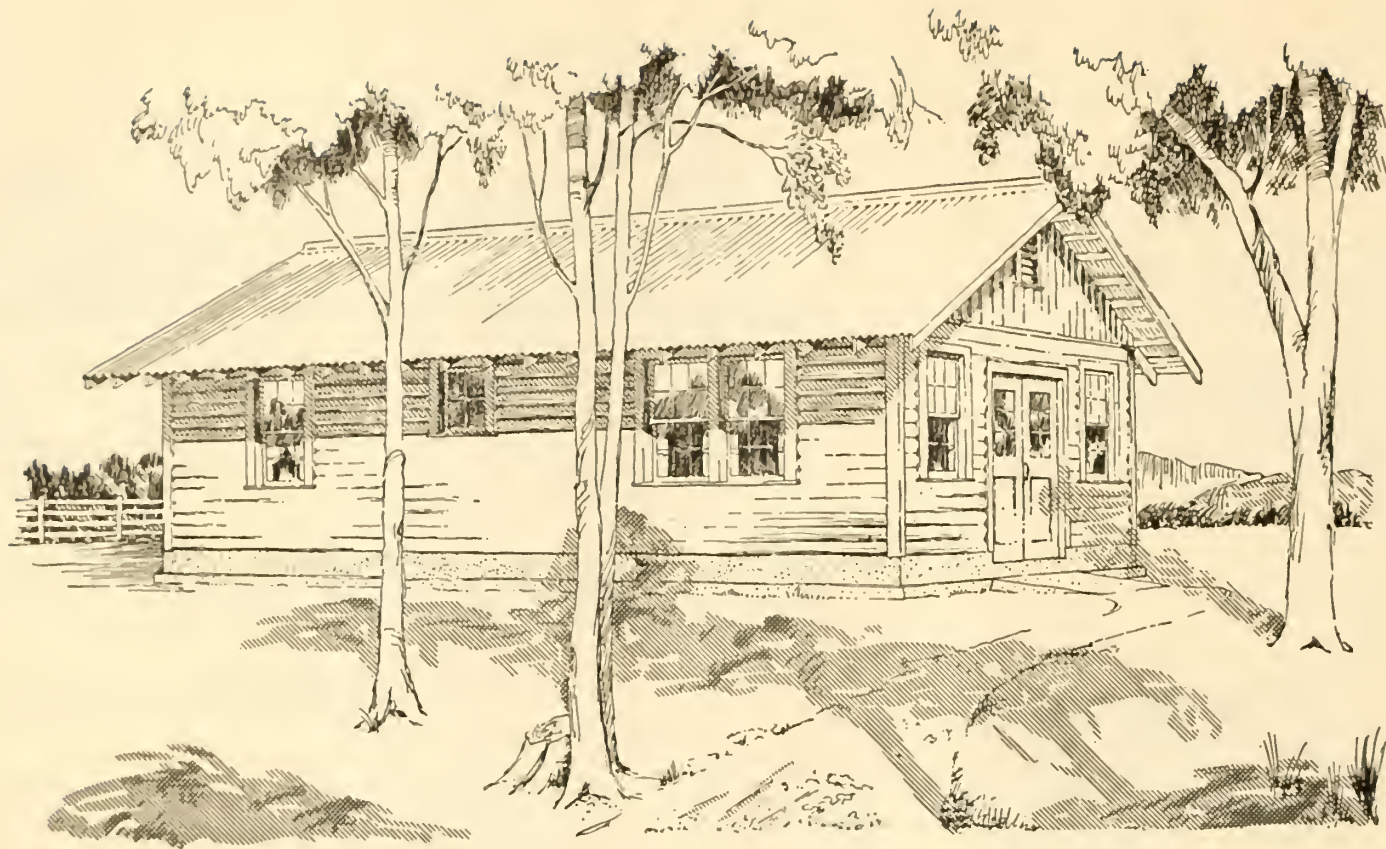
## COMMUNITY CAMP BUILDING

The large main room with a stage and dressing rooms at one end and a large fireplace at the other provides ample space for a variety of community activities. The kitchen is equipped with a closet, sink, range, cabinets, etc., to facilitate the preparation of meals for a large number of people. Its location at the opposite side from the main entrance avoids confusion with arriving guests and those serving meals at tables set in the assembly room. Seating capacity, about 250 persons.

It is well adapted for use as a central building for a camp where sleeping quarters are provided in separate buildings.

Drawing No. 701-5606 (2 sheets)



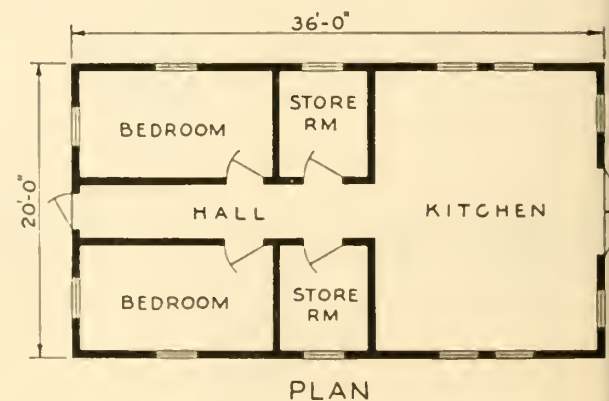


#### 4-H CLUB KITCHEN

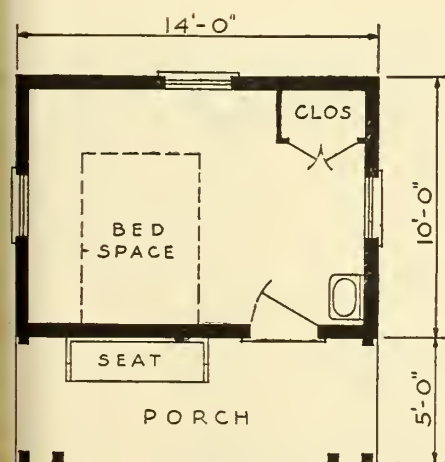
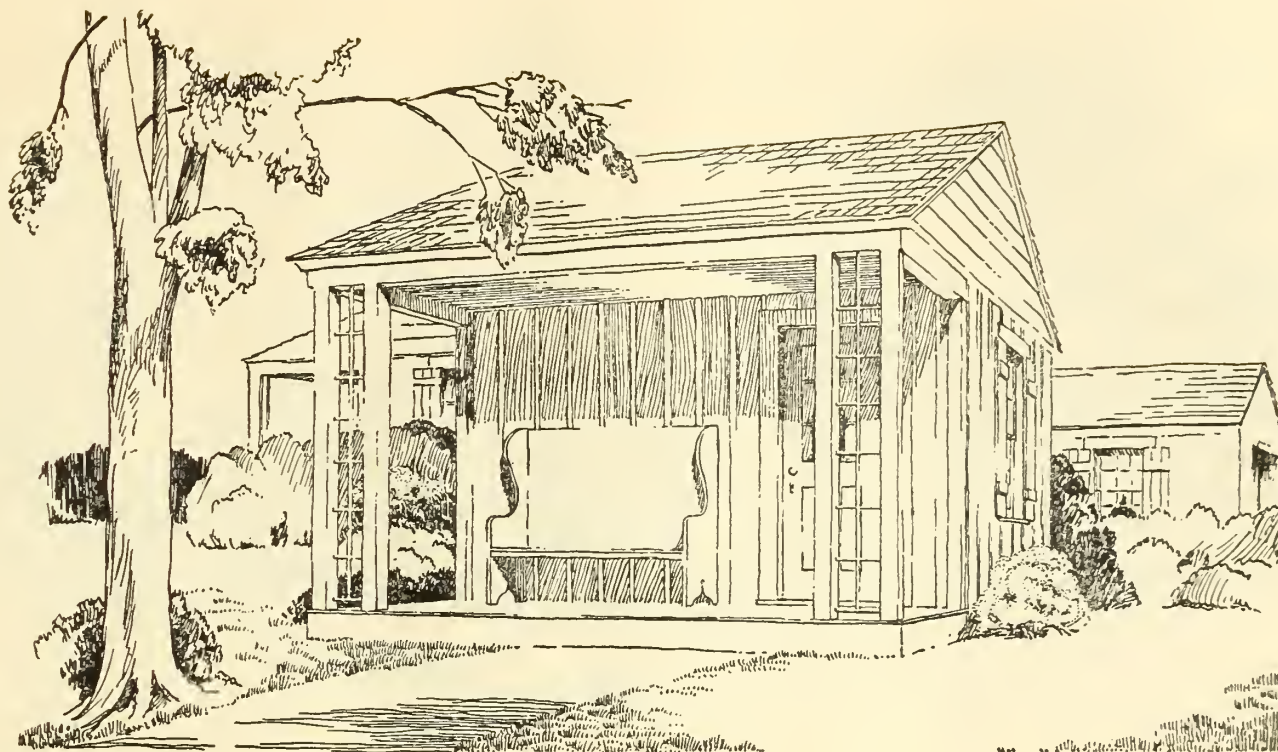
A very useful building in a 4-H Club camp. Two large bedrooms provide sleeping space for help or occasional visitors when the full camp is not open. If cooking is done for a large camp,

sleeping and dining quarters must be provided elsewhere. A chimney should be built if a wood or coal stove is to be used for cooking.

Drawing No. 791-5607 (1 sheet)







PLAN

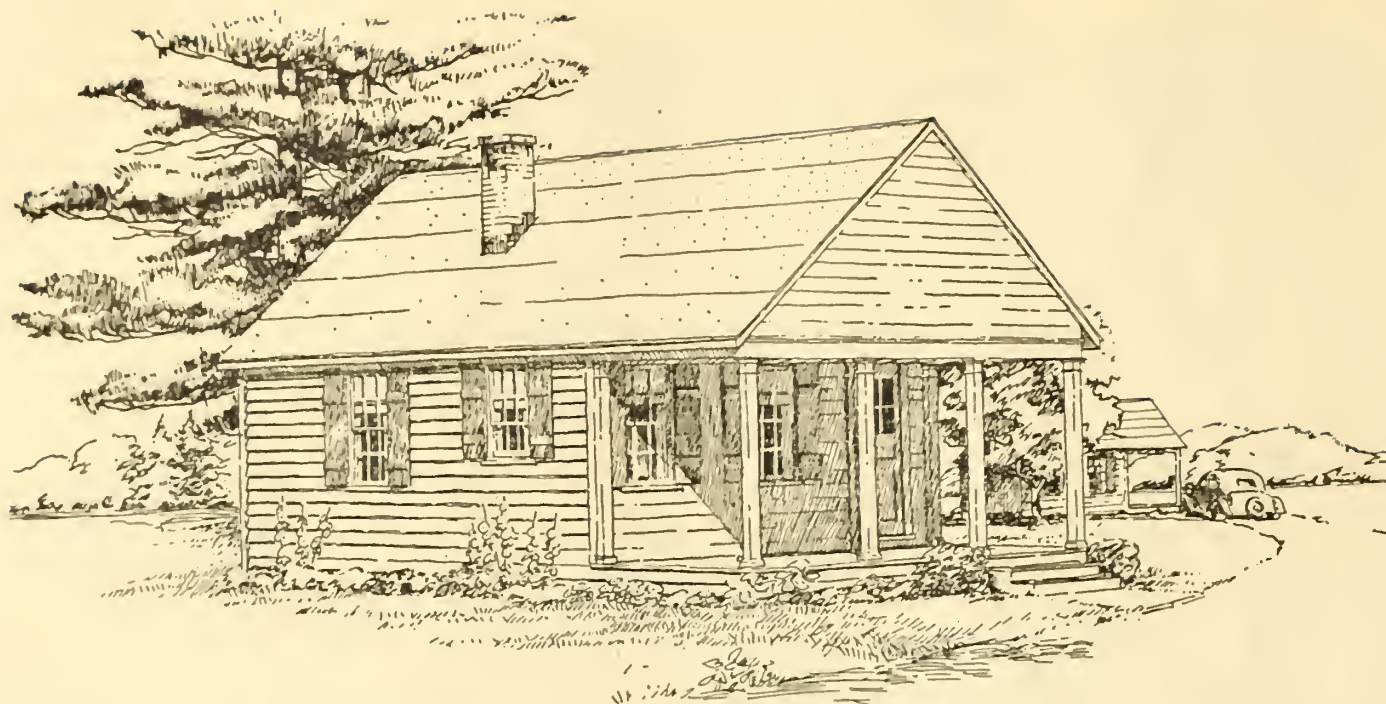
## ONE-ROOM CABIN

A low-cost cabin finds many uses. Farmers sometimes build for tourist trade as a side line; the family may need a vacation shack or a spare room may be needed for an office or for an occasional guest. A pier

foundation would reduce the cost; however, where termites are a pest the girders and floor timbers should be set higher off the ground.

Drawing No. 794-5184 (1 sheet)

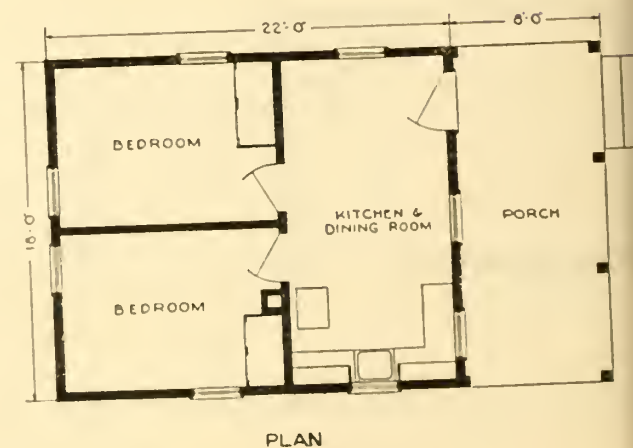


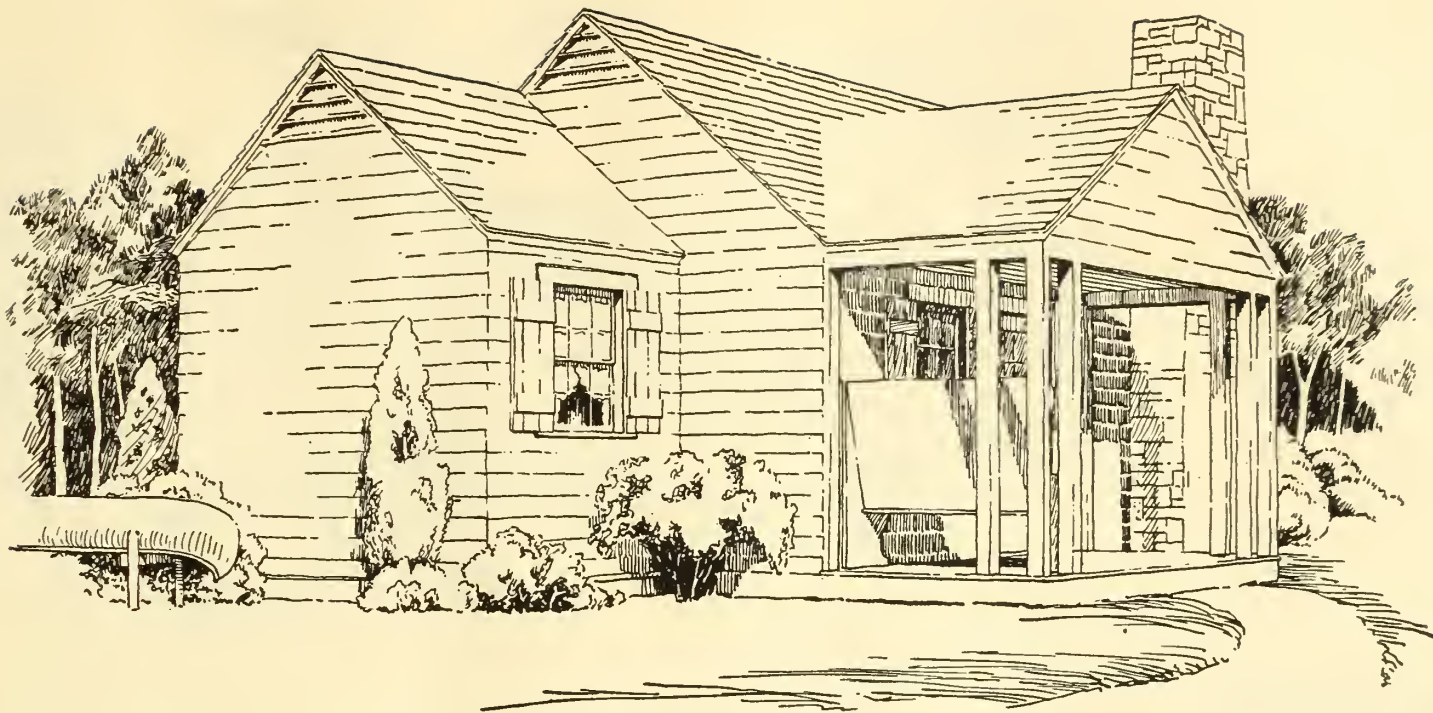


### THREE-ROOM CABIN

This cabin is suitable for camping or as a guest house. It could serve a family temporarily while a permanent house was being built. The cook stove would also be the heating stove. Insulation would make the cabin more comfortable in hot climates.

Drawing No. 794-5185 (1 sheet)



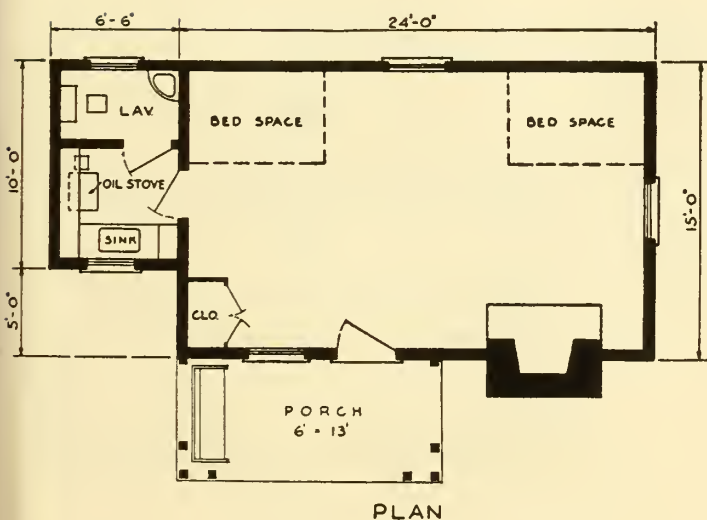


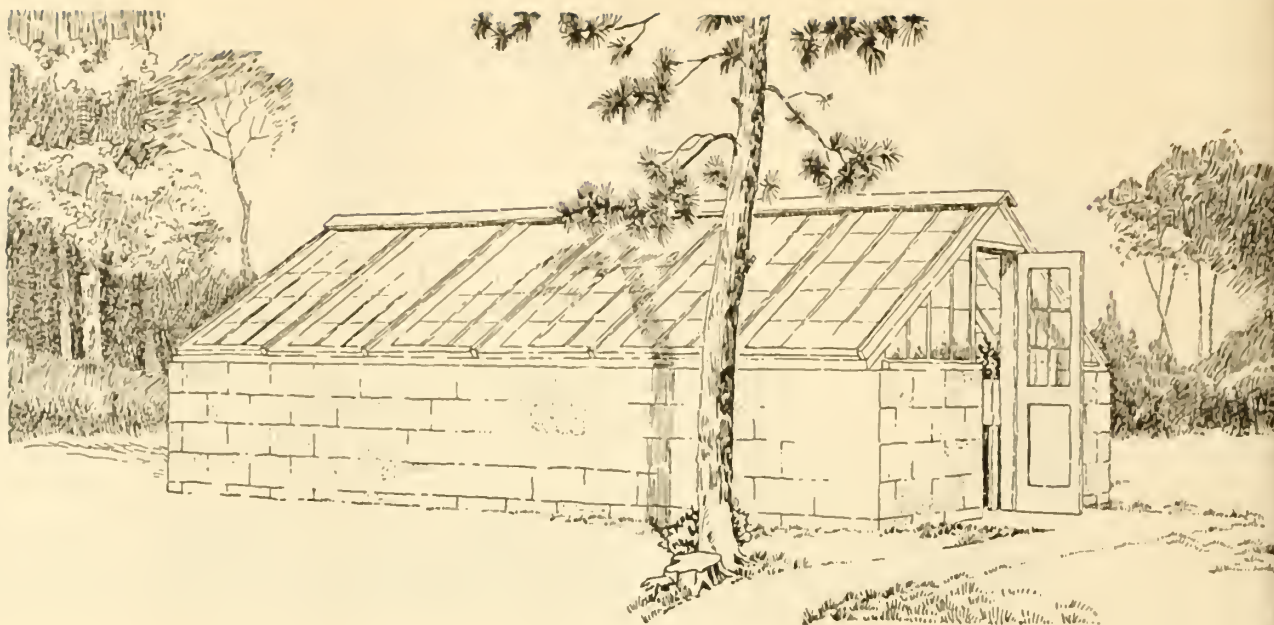
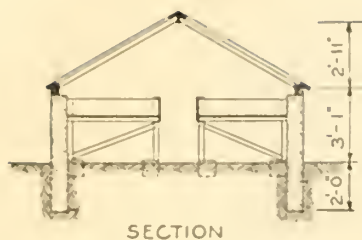
## CAMP BUILDING

Rural communities frequently sponsor 4-H and other club activities. This small building provides a large room for games, meetings, or a county agent's office; it could also be used for camping. A pleasing appearance may be obtained by using logs for the walls.

Drawing No. 794-5187 (1 sheet)

5187

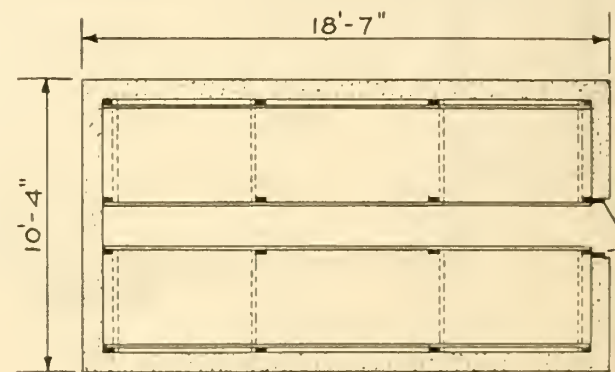




## SASH GREENHOUSE

A small greenhouse is an asset for starting seeds early and for beginners in the greenhouse enterprise. This low-cost house can be built with standard hot-bed sash. The length may be increased but the width should be kept within 10 feet as shown or made 20 feet. A well-drained site with a southern exposure protected on the north by buildings or a wind-break should be chosen.

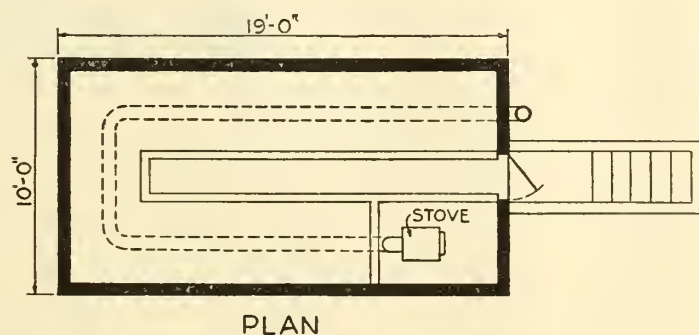
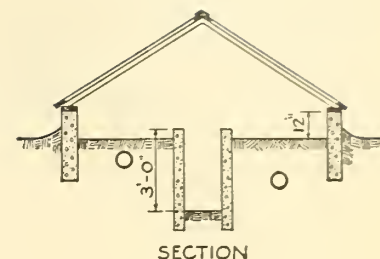
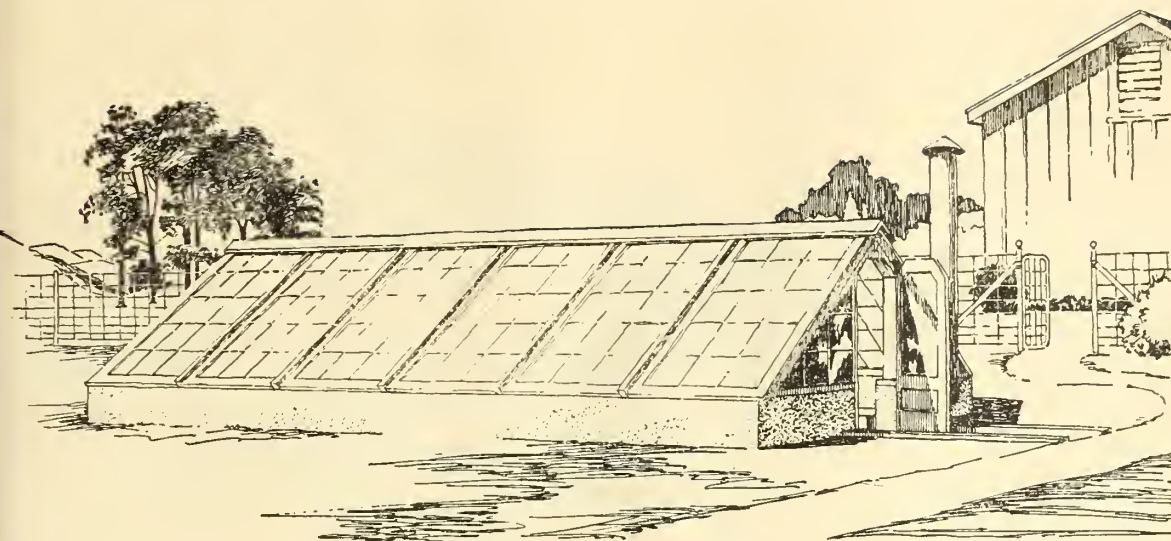
Heat may be supplied by a coal or wood stove or by hot-water heat from the farmhouse boiler. Sometimes small laundry stoves having water backs are used for circulating water through coils under the benches. When using hot-water heat the heater should be low enough to assure circulation.



PLAN

Drawing No. 795-5189 (1 sheet)

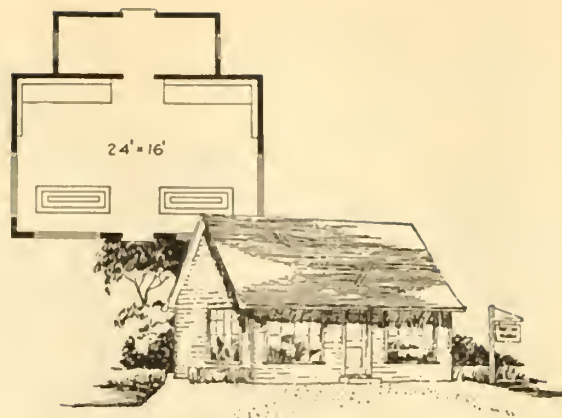
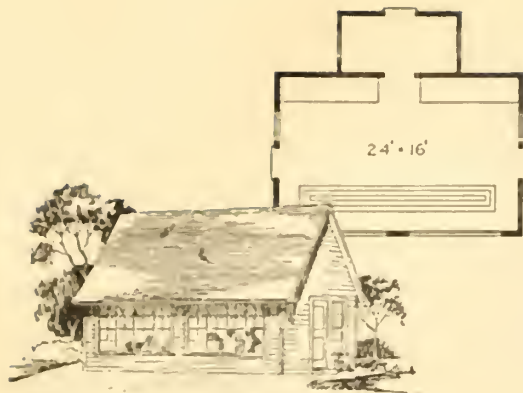




## FLUE-HEATED SASH HOUSE

For early plants this flue-heated house is efficient and economical to construct. Standard hotbed sash can be used for the roof. The pit permits a low structure that can be well protected from cold winds.

Drawing No. 795-5608 (1 sheet)



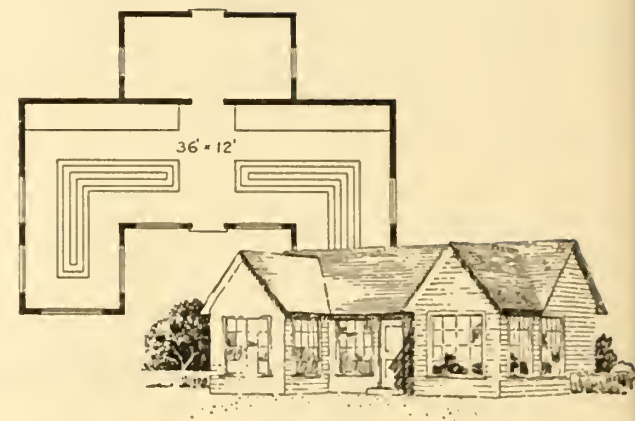
## FOUR ROADSIDE MARKETS

In favorable locations farmers are building permanent markets of the types shown. These are frequently equipped with a water supply, ample shelter, rest rooms, tables, and other features the traveling public appreciates. Sometimes overnight cabins are operated as a side line. If set well off the road, safe parking will be another advantage, but it should be in sight of travelers

from some distance in both directions. Stands should never be located where they may increase traffic hazards.

These four sketches are suggestive of good design. Working drawings are not available. Local building materials such as rubble, logs, etc., could be utilized effectively to fit the site.

Drawing No. 799-5190 (1 sheet)



## ← OPEN ROADSIDE STAND

Roadside stands have developed from the pioneer stage of a few rough boards and an umbrella to attractive structures in great variety. Simple open stands can often be built from local materials. They are sufficient where a small quantity of produce is sold only 1 or 2 days of the week.

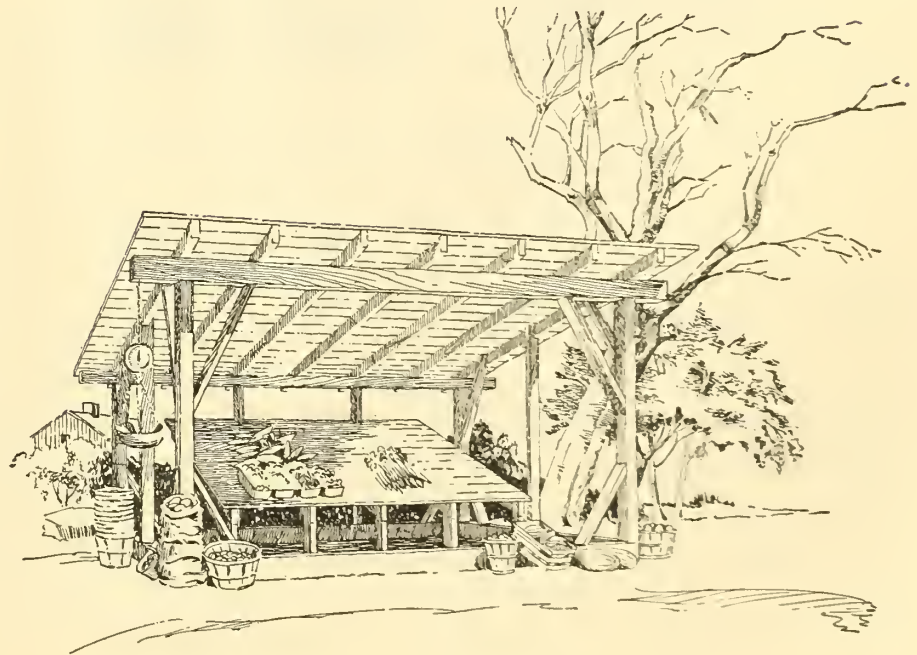
Drawing No. 799-5194 (1 sheet)

5194

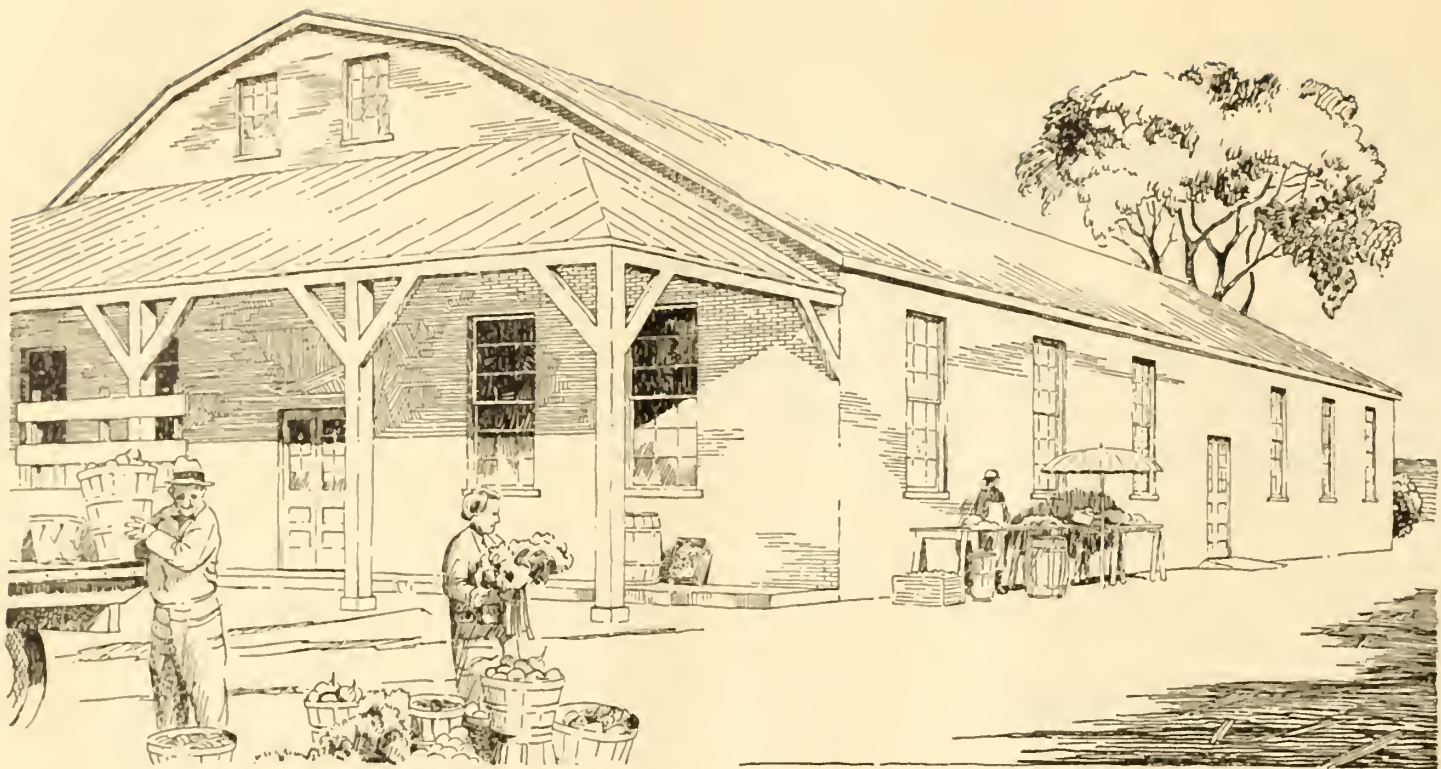
## A PRACTICAL ROADSIDE STAND →

This 8- by 12-foot stand can be built at low cost. If the location proves profitable the stand can be enclosed with drop siding, vertical boards, or slabs so that the produce will be better protected from dust and rain and not have to be removed at night.

Drawing No. 799-5604 (1 sheet)



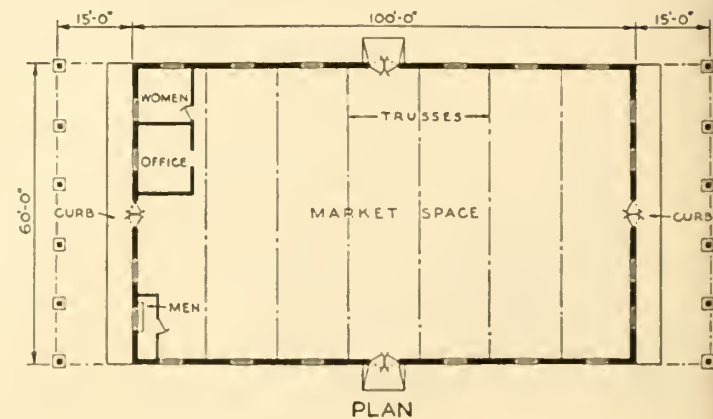


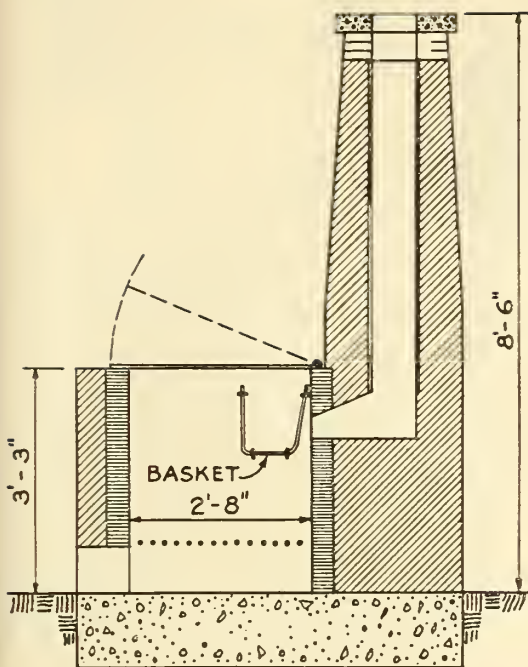


## CURB MARKET

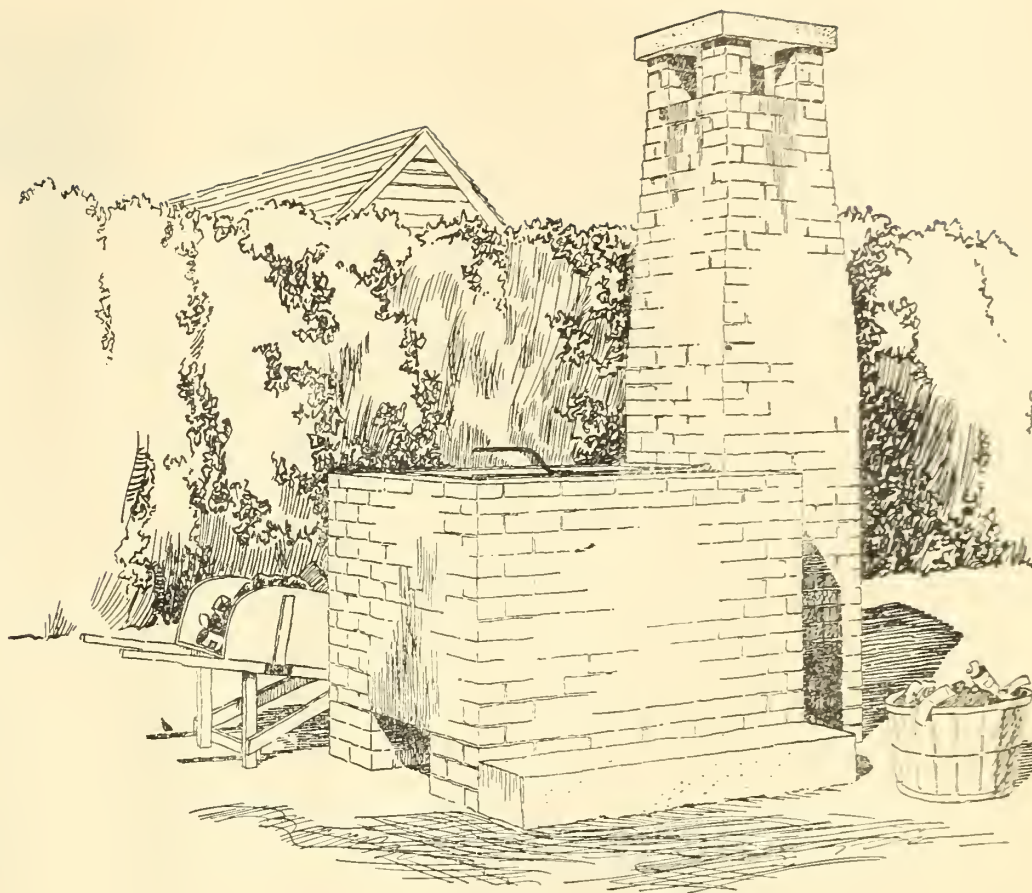
Covered porches at each end of this curb market provide shelter for outside stands. The floor, which is clear of posts, permits economical lay-outs for inside stalls and large exhibits. The walls are of brick veneer and studs; details are given for a wood truss.

Drawing No. 799-5605 (2 sheets)





SECTION



## INCINERATOR

A special feature of this incinerator is the metal rack or firebox which permits efficient disposal of damp garbage; always a domestic problem. Diseased poultry, rabbits, and other small animals or larger animals, after quartering, can be completely destroyed in a sanitary manner. The basket

can be increased a little in size. Ordinary household trash will serve as fuel for kitchen wastes but wood or coal may be needed when an appreciable number of carcasses are to be burned.

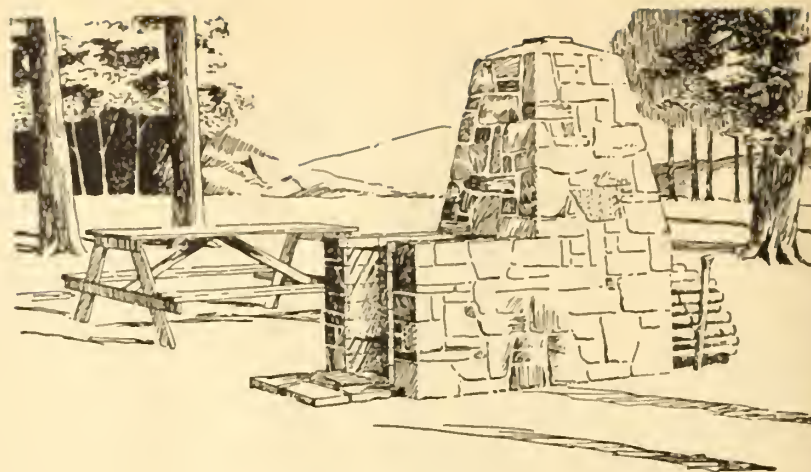
Drawing No. 852-5198 (1 sheet)



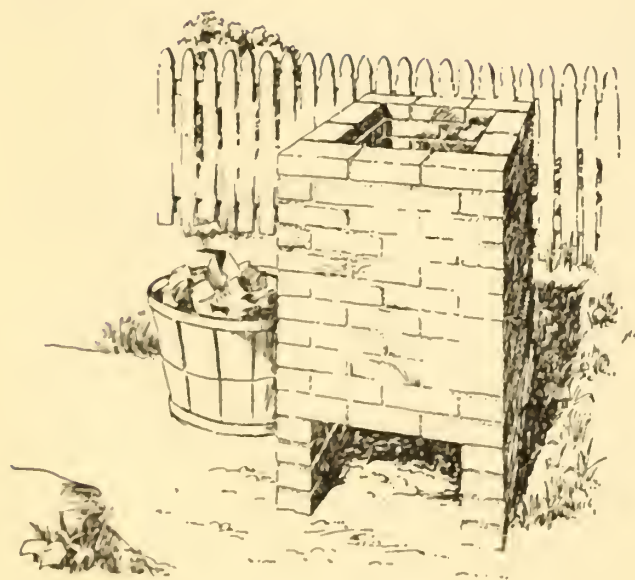
## FIREPLACE

A practical outdoor fireplace that will be found useful for family picnics in the back yard or for use in connection with recreational parks or tourist camps.

Drawing No. 852-5609 (1 sheet)



5609



## TRASH BURNER

This small trash burner is adaptable to the disposal of household wastes. A screen should be provided for the top to prevent wind scattering charred paper around the premises.

Drawing No. 852-5610 (1 sheet)

5610



# INDEX OF DESIGN NUMBERS

\*Indicates available drawings  
mentioned in this book but  
not illustrated.

No.	Page
5019. Sheep shed (closed) . . . . .	63
5020. Sweetpotato house (1,000 bushels) . . . . .	89
5023. Three-room milk house . . . . .	50
*5025. Sheep shed (open) . . . . .	64
5029. Smokehouse . . . . .	100
5040. Breeding crate (hog) . . . . .	69
5041. Cattle squeeze . . . . .	57
5050. Low-cost four-room farmhouse . . . . .	22
5054. Five-room farmhouse . . . . .	11
*5061. Sweetpotato house (2,500 bushels) . . . . .	89
5063. Hog-scalding equipment . . . . .	69
5065. Gable-roof colony house (hogs) . . . . .	67
5083. Self-feeder (cattle) . . . . .	57
5089. Hay shed . . . . .	81
5090. Creosoting plant . . . . .	62
5094. Feed trough (cattle) . . . . .	58
*5096. Sweetpotato house (5,200 bushels) . . . . .	89
*5103. Hay-door details . . . . .	41
*5105. Cow-stall details . . . . .	41
5106. Concreting details for cow stalls . . . . .	42
*5107. Box-stall details (horses, cows, and calves) . . . . .	41
5111. Floor plan, 36 by 72 feet, face in . . . . .	43
5112. Floor plan, 36 by 72 feet, face out . . . . .	43

No.	Page
5113. Six floor plans, 36 feet wide, face in and face out . . . . .	44
*5115. Floor plan, 34 by 66 feet, face in . . . . .	43
*5116. Floor plan, 34 by 66 feet, face out . . . . .	43
*5117. Six floor plans, 34 feet wide . . . . .	44
5119. Barn-framing details, one and one-half-story gable roof . . . . .	41
5120. Barn-framing details, one-story gable roof . . . . .	41
5127. Shed-roof colony house (hog) (no floor) . . . . .	67
5128. Braced rafter dairy barn, 36 by 44 feet, face out . . . . .	45
5133. Poultry house (two-story) . . . . .	74
*5136. Poultry lights and water heater . . . . .	78
*5137. Poultry-burglar alarm . . . . .	78
5143. Bull pen and yard . . . . .	59
5145. Storage shed (semicircular roof) . . . . .	82
5148. Implement shed and shop . . . . .	94
5149. Two-car garage . . . . .	95
5150. One-car garage . . . . .	95
5151. Manure pit . . . . .	98
5166. General barn, 16 by 16 feet . . . . .	26
5167. General barn, 16 by 28 feet . . . . .	27
*5170. Barn-window details . . . . .	41
*5171. Barn-door details . . . . .	41
*5175. Horse-stall details . . . . .	41
5176. Root cellar . . . . .	90
*5179. Sweetpotato house (500 bushels) . . . . .	89
5180. Can-cooling tank . . . . .	53
*5183. Playground lay-outs . . . . .	105
5184. One-room cabin . . . . .	109
5185. Three-room cabin . . . . .	110
5187. Camp building . . . . .	111
5189. Sash greenhouse . . . . .	112
5190. Four roadside markets . . . . .	114
5194. Open roadside stand . . . . .	115

No.	Page
5198. Incinerator . . . . .	117
*5199. Barn-eaves details . . . . .	41
5262. Beef-cattle barn . . . . .	54
5271. A-type colony hog house . . . . .	67
5291. Brooder house . . . . .	75
5388. Movable loading chute (hogs) . . . . .	70
5390. Dipping vat (hogs) . . . . .	70
5400. Summer-range shelter (poultry) . . . . .	79
5457. Milking barn and milk house . . . . .	51
5459. Dairy barn, one-row shed roof . . . . .	46
5460. Open shed (cattle) . . . . .	55
5468. Cattle guard (wood) . . . . .	58
*5469. Cattle guard (concrete and wood) . . . . .	58
*5470. Cattle guard (concrete and steel) . . . . .	58
5501. Utility shed . . . . .	99
*5505. Farm gates . . . . .	62
*5512. Horse barn . . . . .	37
5524A. Barn-framing details, gothic roof . . . . .	41
5525B. Barn-framing details, two-story braced rafters . . . . .	41
5526C. Barn-framing details, one-and-one-half-story braced rafters . . . . .	41
5527F. Barn-framing details, one-story scissors truss . . . . .	41
5528. Four-bin granary . . . . .	83
*5530. Movable bin (500 bushels) . . . . .	86
*5531. Movable bin (1,000 bushels) . . . . .	86
*5533. Corncrib (700 bushels) . . . . .	84
*5535. Double crib . . . . .	84
5536. Low-cost three-room farmhouse . . . . .	23
5537. Low-cost three-room farmhouse . . . . .	24
5538. Low-cost four-room farmhouse . . . . .	25
5539. Four-room farmhouse, one-story . . . . .	12
5540. Four-room and attic farmhouse . . . . .	13
5541. Five-room farmhouse . . . . .	14

No.	Page
5542. Five-room farmhouse . . . . .	15
5543. Five-room farmhouse . . . . .	16
5544. Five-room farmhouse, one-story . . . . .	17
5545. Six-room farmhouse and attic . . . . .	18
5546. Seven-room farmhouse, one and one-half-story . . . . .	19
5547. Eight-room farmhouse, one and one-half-story . . . . .	20
5548. Farmhouse, six-room two-story . . . . .	21
*5549. General barn, 30 by 50 feet . . . . .	29
5550. General barn, 36 by 50 feet . . . . .	28
5551. General barn, 36 by 40 feet . . . . .	29
5552. General barn, 32 by 36 feet . . . . .	30
5553. General barn, 32 by 40 feet . . . . .	31
5554. General barn, 30 by 42 feet . . . . .	32
*5555. Cotton shed . . . . .	99
5556. General barn, 24 by 30 feet . . . . .	33
5557. General barn and lean-to . . . . .	34
5558. General barn, 18 by 24 feet . . . . .	35
5559. Feeding barn . . . . .	36
5560. Horse barn, 36 by 74 feet . . . . .	37
5561. Mule barn, 34 by 60 feet . . . . .	38
*5562. Implement shed, three-bay unit . . . . .	96
5563. Horse barn, 30 by 70 feet . . . . .	39
5564. Lean-to shed . . . . .	47
5565. Dairy barn, one-row gable-roof . . . . .	48
5566. Dairy barn, 34 by 56 feet . . . . .	49
5567. Cattle shed, 64 by 40 feet . . . . .	56
5568. Dipping vat (cattle) . . . . .	60
5569. Corral (cattle) . . . . .	61
5571. Creosoting plant . . . . .	62
5572. Sheep shed, 20 by 38 feet . . . . .	64
5573. Sheep shed, (200 head) . . . . .	65
5574. Sheep-feeding yards . . . . .	66
5575. Farrowing house . . . . .	68

No.	Page
5576. Hog-lot equipment . . . . .	71
*5577. Hog troughs . . . . .	71
5578. Grading shed (hogs) . . . . .	72
5579. Self-feeder (hogs) . . . . .	73
5580. Poultry house . . . . .	76
5581. Poultry house (20 by 20 feet) . . . . .	77
5582. Poultry house (20 by 50 feet) . . . . .	78
5583. Electric brooder . . . . .	79
5584. Home-made lamp brooder . . . . .	79
5585. Brooder house on skids . . . . .	80
5586. Corncrib (500 bushels) . . . . .	84
5587. Corncrib (3,000 bushels) . . . . .	85
5588. Movable grain bin (660 bushels) . . . . .	86
5589. Trench silo . . . . .	88
5590. Apple packing and storage house (50 acres) . . . .	91
5591. Fruit and vegetable storage (1,000 bushels) . . . .	92
*5592. Sweetpotato storage house (log construction) . . . .	89
*5593. Tobacco barn (log construction) . . . . .	93
5594. Tobacco barn (frame construction) . . . . .	93
5595. Implement shed and shop . . . . .	96

No.	Page
5596. Implement shed and loft . . . . .	97
5597. Slaughterhouse . . . . .	101
5598. Milkhouse . . . . .	52
5599. Canning plant . . . . .	102
5600. Small canning plant . . . . .	103
5601. Canning plant . . . . .	104
5602. Community center . . . . .	105
5603. Club building . . . . .	106
5604. Roadside stand . . . . .	115
5605. Curb market . . . . .	116
5606. Community camp building . . . . .	107
5607. 4-H club kitchen . . . . .	108
5608. Flue-heated sash house . . . . .	113
5609. Fireplace . . . . .	118
5610. Trash burner . . . . .	118
*5611. Sweetpotato house (15,000 bushels) . . . . .	89
5612. Corncrib (700 bushels) . . . . .	87
*5613. Basement for sweetpotato houses . . . . .	89
*5614. Auto-bumper gate . . . . .	62
*5615. Slaughterhouse . . . . .	101



# BULLETINS RELATING TO CONSTRUCTION

COPIES of the following bulletins (except those indicated by an asterisk (\*)) may be obtained free from the Division of Publications, Office of Information, United States Department of Agriculture as long as the available supply lasts. Those indicated by an asterisk (\*) can be purchased only from the Superintendent of Documents, Government Printing Office, Washington, D. C., for the prices noted (stamps not accepted).

## FARMERS' BULLETINS

- 523, Tobacco Curing.
- 578, The Making and Feeding of Silage.
- 684, Squab Raising.
- 697, Duck Raising.
- 744, The Preservative Treatment of Farm Timbers.
- 767, Goose Raising.
- 810, Equipment for Farm Sheep Raising.
- 847, Potato Storage and Storage Houses.
- 879, Home Storage of Vegetables.
- \*1078, Harvesting and Storing Ice on the Farm. 5 cents.
- \*1132, Planning the Farmstead. 5 cents.
- 1160, Diseases of Apples in Storage.

- 1214, Farm Dairy Houses.
- \*1219, Floors and Floor Coverings. 5 cents.
- 1227, Sewage and Sewerage of Farm Homes.
- 1260, Stored-Grain Pests.
- 1267, Utilization of Flue-Heated Tobacco Barns for Sweetpotato Storage.
- 1318, Greenhouse Construction and Heating.
- 1342, Dairy-Barn Construction.
- 1350, Beef-Cattle Barns.
- 1393, Principles of Dairy-Barn Ventilation.
- 1409, Turkey Raising.
- 1412, Management of Dairy Bulls.
- 1419, Care and Management of Farm Work Horses.
- 1426, Farm Plumbing.
- 1442, Storage of Sweetpotatoes.
- 1448, Farmstead Water Supply.
- 1452, Painting on the Farm.
- 1460, Simple Plumbing Repairs in the Home.
- 1472, Preventing Damage by Termites.
- 1483, Control of Insect Pests in Stored Grain.
- 1487, Practical Hog Houses.
- 1490, Hog-Lot Equipment.
- 1500, Rammed-Earth Walls for Buildings.
- 1508, Poultry Keeping in Back Yards.

1512, Protection of Buildings and Farm Equipment From Lightning.

1513, Convenient Kitchens.

1538, Incubation and Brooding of Chickens.

1554, Poultry Houses.

1572, Making Cellars Dry.

1582, Protection of Log Cabins, Rustic Work, and Unseasoned Wood From Injurious Insects.

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1590, Fire-Protective Construction on the Farm.

\*1636, Farm Bulk Storage for Small Grain. 5 cents.

1638, Ratproofing Buildings and Premises.

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1649, Construction of Chimneys and Fireplaces.

1658, Farm Water Power.

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1772, Use of Concrete on the Farm.

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1804, Community Buildings for Farm Families.

1811, Control of Insects Attacking Grain in Farm Storage.

1818, Mechanical Milk Cooling on Farms.

1820, Silo Types and Construction.

1832, Farm Fences.

1838, Electric Light for the Farmstead.

### LEAFLETS

56, Preventing Cracks in New Wood Floors.

62, Why Some Wood Surfaces Hold Paint Longer Than Others.

68, Roadside Markets.

\*77, Bracing Farm Buildings, 5 cents.

\*87, Wind-Resistant Construction for Farm Buildings, 5 cents.

101, Injury to Buildings by Termites.

124, Sash Greenhouses.

### CIRCULARS

\*155, Ice Well on the Dairy Farm, 5 cents.

\*278, The Commercial Storage of Fruits, Vegetables, etc, 5 cents.

\*335, Distillate Burners, 5 cents.

\*406, Oil Burners for Home Heating, 5 cents.

### MISCELLANEOUS PUBLICATIONS

\*138, Refrigeration in the Handling, Processing, and Storing of Milk and Milk Products, 10 cents.

\*278, Plans of Farm Buildings for Northeastern States, 30 cents.

\*319, Plans of Farm Buildings for Western States, 60 cents.

### AAA COMMODITY INFORMATION SERIES

38 Wheat-1, Wheat Storage in the Ever-Normal Granary.

38 Corn-2, Corn Storage in the Ever-Normal Granary.





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## SPECIAL STATE PLANS

NOTE: Request the agricultural extension service of your State college of agriculture to mail you a list of the plans and bulletins illustrating the construction of other farm buildings especially recommended for use in your State.

Keep the list in this envelope.







